

WEEK
AGO

YEAR
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BUSINESS WEEK

START
OF WAR
1939



Instructions: Where, when, and how.

SINESS
EEK
DEX

TWENTY CENTS • PUBLISHED BY THE MCGRAW-HILL

You'd think

Americans still believed

in Santa Claus

— **T**O read most of the post-war plans for a better world, you'd think they were written by Santa Claus for little children. This war is being fought for *freedom from political oppression*, not for freedom from work. It's time someone had the courage to tell this fundamental truth to Americans and the whole world:—as long as you have your health nobody is ever going to *give* you anything; you are never going to *have* anything you don't earn by hard, efficient work.

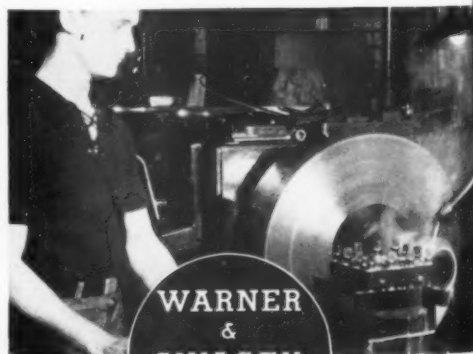
The only time the laws of economics can be suspended is during a war . . . it's easy now for anyone to get and hold a job whether or not he does it efficiently and earns his pay. That time is almost over, and no power on earth can prevent its ending. When the war peak has passed, the only man or woman who will hold a job and prosper and progress (whether the job is management, shop, office or—we hope—political) will be the one who understands that he can only be paid out of what he produces, and so will produce better in order to get better pay.

Post-war plans by government and groups are all right and should be made. But they will all be useless unless every individual American makes his own post-war plan and practices it *now*:

(1) Spend today as little as you can. You'll help keep prices down, you'll build your own reserve which is the only place any self-respecting American wants to look for help.

(2) Get the habit now of maximum skill, efficient production, doing the best job you possibly can. Then you'll be in the ranks of those who will keep their jobs.

That's the post-war program for true freedom—the freedom of independence. And no American worthy of the name wants any other.



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SWASEY**
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er oil in winter, heavier in summer is a rule most motorists know fact on — at their corner service ns. A good idea for airplanes, But the pilot of a war plane in a t of minutes — not seasons — take his ship from summer to winter from the desert's blistering 140 es to the 65-below-zero found at 0 feet. And he can't pull into a ial service station for an oil ge on the way up. Some way of ng the hot oil and warming the has to be used, or his engine would ined in a few hours.

ation engineers knew that a

thermostat could be used to turn on a hot- or cold-air blower at the right times — making the plane its own service station. But conventional thermostats literally fell apart in the extreme heat developed by the engine. And in the extreme cold they just wouldn't work.

Then a thermostat manufacturer developed a control that he was sure would do the job. But his design called for rubber parts that would be unaffected by oil; that could stand being forced against metal repeatedly at high pressures; that wouldn't be affected by high temperatures for long periods yet

would remain flexible at 65 degrees below zero. Such a compound had never before been made. But B. F. Goodrich research men, starting with a synthetic rubber that resisted oil, developed a compound with all the other needed characteristics. Made into precision parts for the new thermostat, it performed perfectly; another B. F. Goodrich development for war that will have useful and important peacetime applications. *The B. F. Goodrich Company, Industrial Products Division, Akron, Ohio.* 

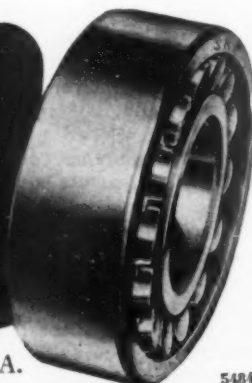
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BUSINESS WEEK

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Civilian Goods Policy

A definite statement of policy on civilian goods production, pending Germany's defeat, has finally emerged from WPB. Assurance that it will stick may be found in the fact that it was worked out jointly by Chairman Donald M. Nelson and Executive Vice-Chairman Charles E. Wilson. Their action is expected to end the confusion to which the question of increasing essential civilian goods output has been thrown in recent weeks by contradictory WPB moves.

Small business gets a break under the policy as officially outlined this week—relieving it of the heavy spade work done by Maury Maverick since he became head of Smaller War Plants Corp. a few months ago (BW—Jan. 22 '44, p. 22).

Based on Labor Areas

Keystone of the new civilian goods policy is the relaxation of labor area restrictions (page 102). Production under approved programs for resuming or increasing essential civilian goods manufacture may be distributed among any plants, regardless of their location, whose employment, after the proposed increases are taken into account, will not exceed 100 persons.

In the critical West Coast labor areas of San Diego, Los Angeles, San Francisco, Portland, and Seattle, the limit is 50 employees. The ceiling on the number of employees is intended to prevent plants located in tight labor areas from draining workers from war plants.

Easier Zones Favored

Plants employing more than 100 persons are not barred from participation in approved civilian goods production programs, but such production will be placed as far as possible in plants located in Group III and Group IV areas where labor supply is comparatively less stringent.

Portions of such programs may be put in plants located in Group II labor areas to an extent possible without interference with military production. Any additional portion may be put in plants located in Group I areas—the regions of tightest labor supply—only after clearance and approval by the area production urgency committee, where established; otherwise by Vice-Chairman Wilson.

The responsibility put upon the local

urgency committees in Group I areas for possible production increases is an invitation to such communities to see if they can find labor to boost civilian goods production that is not needed on war jobs. Officials hope that by dangling this carrot in front of their nose, many communities will overcome local labor shortages.

The South in His Pocket

On the basis of the present outlook, President Roosevelt, as in the past, will go into the election with the 127 electoral votes of the solid South in his pocket. That is a little less than half of the 266 needed to win.

Any lingering belief that Roosevelt would lose one or more of the southern states was dispelled after the Florida and Alabama primaries, in which New Deal Senators Claude Pepper and Lister Hill won renomination. The race issue, centering around Mrs. Roosevelt's activities on behalf of Negroes, failed to defeat the New Deal candidates; this indicates almost indisputably that, even with Roosevelt as the Democratic candidate, the South won't split.

Roosevelt probably will run stronger in Florida and Alabama, for instance, than did Pepper and Hill, in spite of widespread disapproval in the South of Administration policy, especially regarding labor. Traditional southern adherence to a one-party system and southern approval of international policy apparently outweigh this dissatisfaction.

The Pivotal States

The outcome of the November election hinges on New York and California with 47 and 25 electoral votes respectively. Starting with the 127 votes of the solid South, Roosevelt probably will win if he is able to swing these two states.

Other important battlegrounds will be the border states of Maryland, West Virginia, Kentucky, Missouri, and Oklahoma, which have a total electoral strength of 52.

In addition to New York and California, the President will have to win some of this border vote along with several of the smaller western states and a bloc of votes elsewhere equivalent to Massachusetts' 16 in order to pile up the winning 266.

Roosevelt is believed to have little chance of capturing many, if any, of the 140 midwestern electoral votes.

Lewis Rides Alone

John L. Lewis' withdrawal of the United Mine Workers' application for readmission to the American Federation of Labor (BW—May 22 '43, p. 5) reveals, among other things, that he has given up his dream of the prodigal son leading the family out of the fourth-term camp. More practical reason was his failure to get the A.F.L. to surrender the organizing of the chemical industry to U.M.W.'s District 50. This is the point on which Lewis was adamant.

In a letter to William Green, A.F.L. president, filled with characteristic invective, the U.M.W. chief took occasion to accuse the Administration of blocking labor unity.

Republicans, remembering that Lewis' support did them no good in 1940, probably will hesitate to pick up this line. And Lewis, in turn, may withhold even tacit support of Thomas E. Dewey who blasted him once for trying to organize the nation's dairy farmers.

Price Slash, Too?

Slashing the ration point value of most meats and processed foods to zero (page 17) may not solve the Administration's food surplus problems. Officials wonder if there isn't a limit to how much more food consumers will buy at current prices.

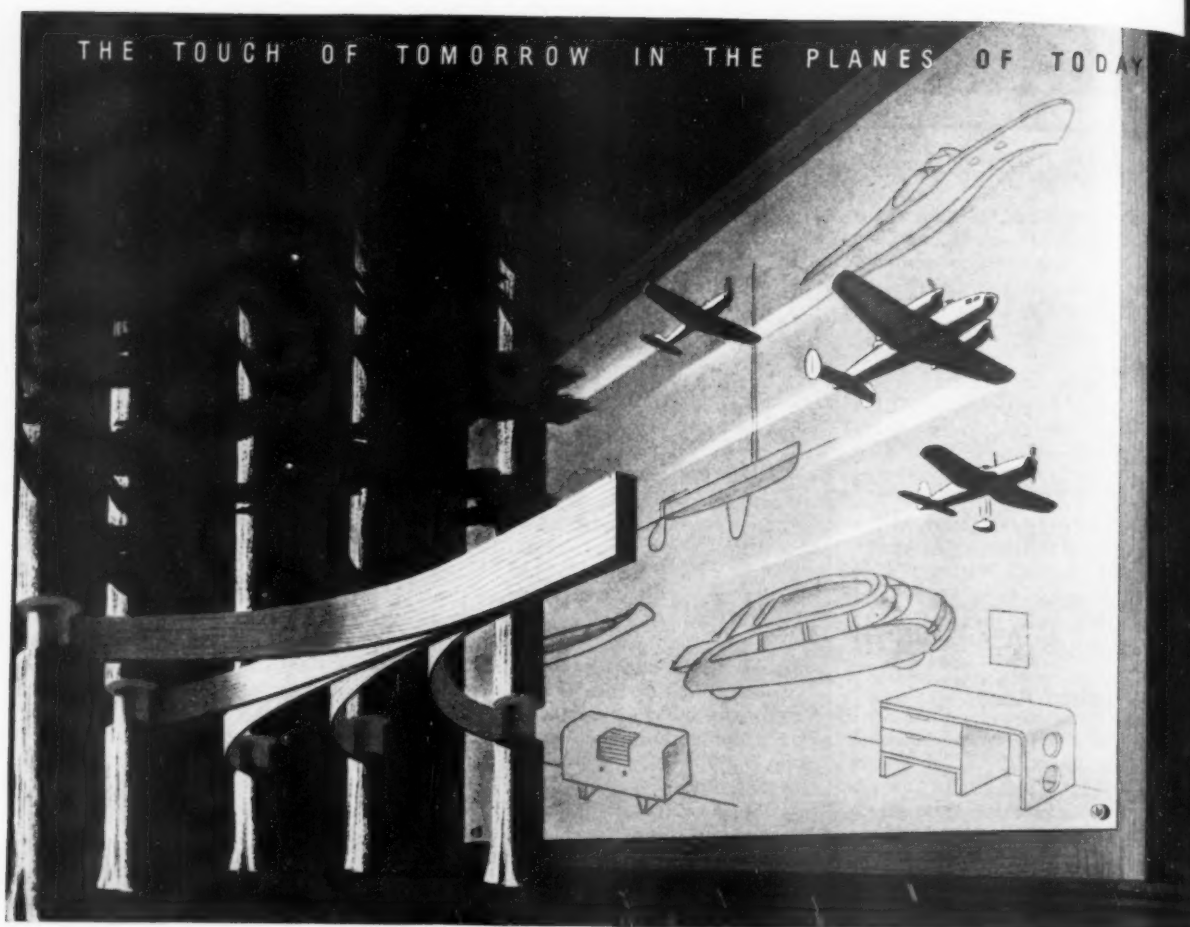
OPA makes no secret of its hope that lowering of the ration dikes will bring enough meat on the market to force prices below ceilings—pushing down the cost of living. If the trade doesn't cut meat prices voluntarily, an official reduction in ceilings might be considered.

War Food Administration is fearful, on the other hand, that a price drop would further hinder its efforts to make good on farm price supports (BW—May 6 '44, p. 57).

Reason: Bad Estimate

Explanation for the lifting of meat rationing is a WFA miscalculation of the supply. The food agency had estimated that during the April-June period the available supply would permit civilian consumption at the rate of 139 lb. a year, as contrasted with 158 lb. during the first quarter. Second-quarter estimate has now been upped to an annual rate of 155 lb. per capita, prima facie evidence that rationing could have been lifted in the first quar-

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Total for the full year is estimated 145 lb. Against a previous estimate 139 lb. last year, civilian consumption was 137 lb.

Other Food Prospects

Processed foods pose a different problem from meat. The meat surplus is expected to be temporary; officials expect that by next winter meat rationing will be tighter than ever.

Canned vegetables may continue in ample supply, may never go back on the ration list. The reason is not overproduction, but underbuying. Consumers have sizable stocks of commercial stuff, also of home-packed vegetables from last year's Victory gardens. Current production of many truck crops is high. The comfortable supply outlook can, of course, change very suddenly if there should be a drought, coupled with a slump in Victory gardening, of which there are indications.

Subsidy Issue Dies Down

Politics is rapidly removing the major issue from the new price control bill (BW-Apr.22'44,p17). As the banking committees of both Senate and House prepare to draft bills extending the present act beyond its expiration date of June 30, it is evident that the two-year-old battle against food subsidies is just about dead.

Republican leaders are convinced that another fight to ban all food subsidies is not good politics. It is getting too close to election to offend what labor vote might be salvaged by the Republicans. They believe, too, that farmers are now convinced that the Republicans did the best they could to get the subsidy ban, and they don't relish taking another licking.

There will be some rhetorical fighting when the bill reaches the floor, but without virtually solid Republican support, farm bloc members of both parties see no chance of victory.

May Pay Farmers Direct

The Administration, too, apparently is seeking peace, with honor.

OPA is investigating ways and means of turning the present meat and butter rollback subsidies—now paid to processors who are supposed to pass the benefit of them on to farmers—into straight production payments to farmers.

The price agency is sensitive to

charges that price reductions on meat and butter have rolled right back on the farmers (BW-May6'44,p59), while subsidy payments have been absorbed at the processor level. Nobody can prove this statistically, but one big meat packer admits subsidy money will fatten his profits to the tune of \$4,000,000 this year.

He figures that the excess-profits tax will take 90% of it, bookkeeping 5%, and that the last 5% will label him as a war profiteer.

Hot Potatoes Almost Cooked

Decisions in two "hot potato" cases—involving the United Mine Workers and the American Federation of Musicians—are expected soon from the National War Labor Board.

In line with the recommendations of the NWLB panel headed by Arthur S. Meyer (BW-Mar.18'44,p107), the musicians probably will be told to go back to making new recordings for all record makers. Only Decca Records, which agreed to pay royalties to the A.F.M.'s unemployment fund, is processing new music today. New recordings by the other companies have been banned by James C. Petrillo, A.F.M. president, since Aug. 1, 1942.

The course of the coal case (BW-Apr.22'44,p99) is not as clear, but board sentiment to approve a contract which the U.M.W. and 70% of the soft coal industry signed is increasing.

Some board members are beginning to reason this way: The mines are being operated by Interior Secretary Harold L. Ickes under identical terms; if we fail to approve this pact, we're only prolonging government operation of the mines, so what's the use?

WPB Considers New Setup

There's talk of reorganizing WPB materials divisions along product lines. Thus, instead of a steel division, copper division, aluminum and magnesium division, there would be a sheet division, tubing division, etc.

Advocates of this shakeup maintain that it would make life a lot easier for the businessman who comes to Washington hat-in-hand. If he came to the sheet division looking for steel sheet, for example, and there wasn't any to spare, he could be shunted over to the aluminum expert at the next desk who might be able to take care of his needs with aluminum sheet.

A Blush for NWLB

Refusal of a regional war labor board to take jurisdiction over the Minneapolis mail-order unit of Sears, Roebuck & Co. on the ground that it was not engaged in war production is embarrassing the National War Labor Board in view of the latter's firm contrary stand in the Montgomery Ward case (page 19).

The decision—by the Chicago board—was made prior to seizure of Ward's Chicago properties.

In a 4-2 vote, two industry, one public, and one A.F.L. member teamed up against a C.I.O. member and the public chairman.

The decision is now before NWLB on an appeal by the C.I.O. longshoremen's union, and probably will be reversed in line with Attorney General Francis Biddle's opinion that the board had jurisdiction over the somewhat similar Ward dispute.

The issue in the Sears dispute is the company's refusal to bargain with the C.I.O. union even though it was certified by the National Labor Relations Board after a bitter fight with the rival A.F.L. warehousemen's union, which has challenged the C.I.O.'s majority status.

New Worry for Railroads

Railroads are upset by the decision of a federal three-judge court in Philadelphia ordering Pullman, Inc., either to give up its car manufacturing business or to give up the operation of sleeping cars (page 26).

The roads expect that by the end of the war most of the present sleeping equipment will be obsolete or worn out. They had been counting on Pullman to put up the money for extensive modernization and to take the risks. Now the roads figure that unless the decision is reversed by the Supreme Court, Pullman will keep its manufacturing business and get out of the operating end entirely.

Since few roads want to risk a heavy investment in sleeping cars, the major passenger-carrying lines probably would form a continent-wide pool of sleepers to replace the Pullman service.

Tax Revision Delay Seen

With simplification of personal taxes approved by the House and apparently ready to coast through the Senate, congressional leaders are talking about start-

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ing work on simplification of corporate taxes.

The Ways & Means Committee may do some exploratory poking around this year, but the chances are that real work will wait until the new Congress meets in 1945. Progress will be slow as most corporations would prefer a flexible law with a complicated return to a rigid law no matter how simple the return.

If Congress takes up the question of authorizing tax-free reserves for reconversion costs, it will get into another fight with the Treasury which considers present carry-back provisions sufficient.

Capital Gains (and Losses)

A top Army general who can't be quoted predicts that, in popular estimation, the things that will go down in history as having done most to win the war are the P-38 pursuit plane, the C-47 transport plane, blood plasma, the bulldozer, the sulfa drugs—and the jeep.

In the period from Jan. 12 to Apr. 1, WPB issued 27 orders imposing new restrictions; 66 orders relaxing previous controls, or simplifying procedure.

Poor quality of some civilian clothing made of nylon rejected by the Army and Navy reportedly has worried du Pont to the point where the company is considering buying up all yardage rejected in future and dumping it.

A big campaign to salvage old clothes for foreign relief is a good bet for the near future. Officials think a salvage drive is the only way to get around allocating a big slice of the slim textile output (page 45) for export.

Army ordnance is planning resumption shortly of full-scale production of smokeless powder. Powder was among the first important items to be cut back several months ago, but stockpiles are being drawn on heavily.

—Business Week's
Washington Bureau

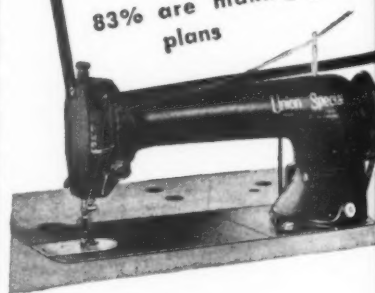
THE COVER

In both armed camps on either side of the English Channel this week one thought—invasion—obscured all others. Like a gigantic boxer bearing down for the knockout blow, the American-British command threw its aerial offensive into high gear, blasted the French coast and German rail communications with holocaustic fury, and made final preparations in England for the toughest job of all—establishing beachheads to breach the Nazis' bristling Atlantic Wall. And in the East the resting Russian Bear began again to push ahead while a burst of activity on the Italian front formed still another link in the encircling chain of pressure.

You are ~~not~~ *alone*
in thinking of
the future!

Among NEEDLE TRADES EXECUTIVES:*

- 57% expect postwar production increases
- 85% expect same or higher employment
- 73% plan equipment modernization
- 67% expect no wage rate reductions
- 83% are making postwar plans



Typical needle trades leaders anticipate sufficient postwar consumer demands to require continuation of, or increase above, present production levels in their plants. Many are now planning replacement of war-worn or obsolete sewing machines with new Union Specials. They know from war production experience the ability of Union Special sewing machines to do a better, faster cheaper job whether on tarpaulins or underwear. They subscribe to Union Special's policy of manufacturing many different machines, each to do a given job.

Union Special sales engineers are ready to help you speed up war production as well as plan postwar sewing machine modernization. Write for address of branch nearest you.

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THE OUTLOOK

BUSINESS WEEK

Y 13, 1944



America has come a long way in filling the arsenal for invasion (page 116). And there could be no more appropriate time to take a careful look at where the country now stands.

Federal budgets have been pushed up to 100 billion dollars a year. Revenues have expanded enormously, but not nearly enough to match the outgo. Consequently, **Treasury debt has risen from 43 billions in the middle of 1940 to 187 billions now.**

We have spent, in just under four years, 180 billions for war: for raising, equipping, feeding, and paying an Army which now is at full strength of about 7,700,000; for building and manning a Navy which still is several hundred thousand short of the 3,650,000 personnel goal; for lend-lease and the first steps in foreign relief and rehabilitation.

•
TAXES—Income taxes on individuals and corporations now make up more than 32 billion dollars of Uncle Sam's annual revenues of 43 billions.

Tax rates on incomes and excess profits aren't going any higher during the war—Congress has decided that—and will come down some with peace.

Revenues from income and excess-profits taxes will decrease; salaries and wages are anchored, and corporation profits are declining.

Profits of large industrial corporations after taxes, as compiled by the Federal Reserve, hit top in 1941. The over-all return for 1943, on much greater volume, was close to 20% below 1941.

•
MANPOWER—Ability of American industry to increase war production appreciably from here on is doubtful. **Any big monthly total for munitions is likely to prove a flash in the pan.**

Drain of manpower into the armed forces and the sharp decline in factory employment (BW—Apr.22'44,p124) are the big factors.

Increased efficiency in war plants apparently enables these establishments to maintain output if not increase it. However, **steel men predict that third-quarter production of their war-supporting industry is sure to be down 5% to 7%.** Problems in other lines contributing to war, such as coal and lumber, are too well known to need restatement.

•
CIVILIAN SUPPLY—Additional recruiting for the armed services, for war plants, or for essential industries will mean new pinches at home.

By no means have civilians been on a bedrock economy. They paid 91 billion dollars for goods and services last year—about 10 billions above the supply expected to be available (BW—May6'44,p11). **So far this year, spending has been at a 95-billion annual clip.**

Department store sales have been well ahead of last year in each 1944 month excepting February. The index of store stocks also is up.

Yet most-needed goods have not always been available. WPB is having to increase production of infants' and children's wear; we can't ration certain types of clothing because there isn't enough to go round.

•
PRICES—How civilians can spend money on goods and services that apparently are not available has had the statisticians sitting up nights.

Hidden inventory is credited in part. Army rejects in such lines as textiles are mentioned. Prices, however, must play some part.

The cost of living (Bureau of Labor Statistics index) has changed but little in the last year. **However, some of the things that go to make it up**

THE OUTLOOK (Continued)

BUSINESS WEEK

MAY 13, 1944

have risen—clothing, fuel, house furnishings—even while food has gone down and the cost of rent has been firmly pegged.

Many luxury items, hard to price-fix, cost substantially more and help to pad the sales and stocks of stores.

WAGES—Basic hourly wage rates have been pretty well held inside the Little Steel formula. However, labor's purchasing power has not been.

Increases in average hourly and weekly wages have resulted from many things—eliminating "substandard" scales with consequent advance in differentials (notably in textiles), correcting "gross inequities," incentive systems, upgrading, overtime, and shifting to higher-paid industries.

Average weekly wages in all manufacturing industries are up from \$26.64 in January, 1941 (base date for the Little Steel formula), to \$45.15 in January, 1944. It isn't all take-home pay, of course; deductions are up from a few cents to nearly \$7 a week, but it's a striking increase all the same.

INFLATION—The Administration is just as determined as ever to hold the stabilization line, and counts on invasion to help with the job.

The price-control law apparently will be extended with little change.

The letter of Little Steel will be maintained for some time (although there will be subterfuges like portal-to-portal for coal).

Roosevelt-Byrnes-Vinson-Bowles undoubtedly will be quite satisfied if they can hold inflationary forces within the bounds of the last few months.

AGRICULTURE—Pressure for a new parity formula and for a ban on subsidies and rollbacks has diminished along with other attacks on price control.

Cash farm income rose to an all-time record of 19¾ billion dollars last year (16 billion in 1942 and a little over 9 in 1940).

While farm prices for a long time rose much faster than the things the farmer buys, this relationship recently has turned around. The ratio of farm prices now is at 115% of the cost of things purchased against the wartime high of 122% a year ago.

LEND-LEASE—Extension of the lend-lease program for another year, approved by Congress this week, again highlights the amount of American industry's production going to other of the United Nations.

Britain received almost exactly 2 billion dollars of munitions from us in 1943, Russia half that much; adding in other industrial products, they got \$2,900,000,000 and \$1,850,000,000 respectively.

Total lend-lease shipments of munitions and other industrial products last year topped the 8-billion-dollar level.

NEW WEAPONS—Latest shift in the war production program, calling for more rocket shells, should be of more interest to Hirohito than Hitler.

Rocket guns are especially effective in landing operations; they deliver a heavy volume of fire from even the lightest craft. **These new rocket shells won't be ready in time for the invasion of Europe, but they'll be in plenty of time for the push to the Philippines and the China coast** (map, page 109).

Rocket guns have given good results in the Pacific. Their big advantage is tremendous firepower without recoil; their shortcomings are in range and accuracy. **New propellents are helping on range.**

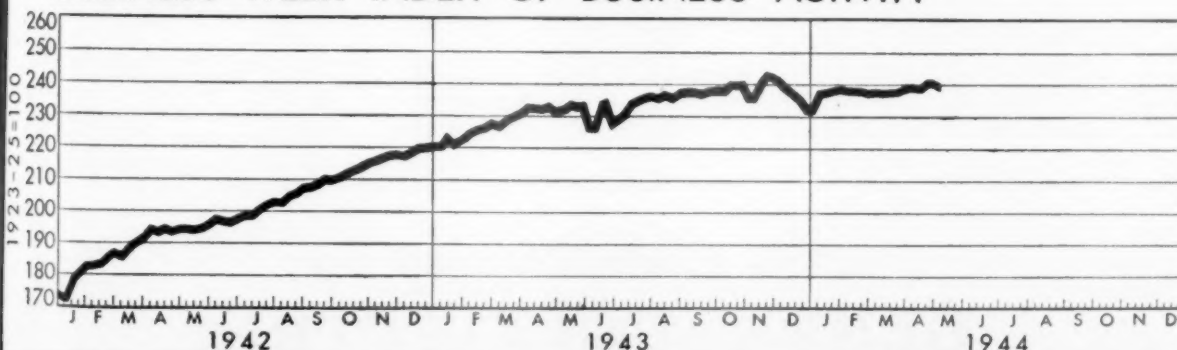
FIGURES OF THE WEEK

	\$ Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
THE INDEX (see chart below).	*240.3	†241.3	240.2	237.0	233.0
PRODUCTION					
Steel Ingot Operations (% of capacity).....	99.4	99.5	98.7	98.2	99.4
Production of Automobiles and Trucks.....	17,935	16,345	18,175	19,585	18,405
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)....	\$6,759	\$6,372	\$5,383	\$7,866	\$12,762
Electric Power Output (million kilowatt-hours).....	4,234	4,336	4,361	4,414	3,904
Crude Oil (daily average, 1,000 bbls.).....	4,519	4,431	4,416	4,389	4,021
Bituminous Coal (daily average, 1,000 tons).....	2,060	2,042	2,086	1,647	1,569
TRADE					
Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars).....	83	82	82	86	80
All Other Carloadings (daily average, 1,000 cars).....	59	58	50	61	51
Money in Circulation (Wednesday series, millions).....	\$21,614	\$21,396	\$21,191	\$19,354	\$16,683
Department Store Sales (change from same week of preceding year).....	+17%	-11%	+32%	+11%	-5%
Business Failures (Dun & Bradstreet, number).....	42	41	37	42	64
PRICES (Average for the week)					
Spot Commodity Index (Moody's, Dec. 31, 1931 = 100).....	249.6	249.5	250.4	244.0	246.0
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)...	162.7	162.6	163.1	160.7	159.9
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)...	222.1	221.9	222.5	213.7	207.7
Finished Steel Composite (Steel, ton).....	\$56.73	\$56.73	\$56.73	\$56.73	\$56.73
Scrap Steel Composite (Iron Age, ton).....	\$19.17	\$19.17	\$19.17	\$19.17	\$19.17
Copper (electrolytic, Connecticut Valley, lb.).....	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢
Wheat (No. 2, hard winter, Kansas City, bu.).....	\$1.64	\$1.64	\$1.64	\$1.55	\$1.39
Sugar (raw, delivered New York, lb.).....	3.74¢	3.74¢	3.74¢	3.74¢	3.74¢
Cotton (middling, ten designated markets, lb.).....	20.95¢	20.95¢	21.16¢	19.70¢	21.09¢
Wool Tops (New York, lb.).....	\$1.300	\$1.294	\$1.315	\$1.270	\$1.320
Rubber (ribbed smoked sheets, New York, lb.).....	22.50¢	22.50¢	22.50¢	22.50¢	22.50¢
FINANCE					
90 Stocks, Price Index (Standard & Poor's Corp.).....	95.9	94.6	95.6	91.1	94.6
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's).....	3.65%	3.66%	3.68%	3.84%	3.92%
High Grade Corporate Bond Yield (30 Aaa issues, Moody's).....	2.73%	2.73%	2.74%	2.71%	2.75%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average).....	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate).....	1%	1½%	1½%	1½%	1½%
BANKING (Millions of dollars)					
Demand Deposits Adjusted, reporting member banks.....	34,649	34,524	32,872	31,774	29,528
Total Loans and Investments, reporting member banks.....	50,674	51,064	51,633	52,642	46,108
Commercial and Agricultural Loans, reporting member banks.....	6,035	6,069	6,215	6,458	5,808
Securities Loans, reporting member banks.....	1,882	1,937	2,193	2,633	2,203
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks..	37,613	37,834	37,961	38,071	32,331
Other Securities Held, reporting member banks.....	2,805	2,867	2,902	2,874	3,103
Excess Reserves, all member banks (Wednesday series).....	800	600	900	1,084	2,128
Total Federal Reserve Credit Outstanding (Wednesday series).....	13,730	13,485	12,766	9,835	6,850

* Preliminary, week ended May 6th.
 † Ceiling fixed by government.

† Revised.
 § Date for "Latest Week" on each series on request.

BUSINESS WEEK INDEX OF BUSINESS ACTIVITY



"They're coming along fine



... but a light frost would ruin the whole crop!"

There's one critical period in the manufacture of huge herringbone gears for U.S. cruisers and destroyers when any marked change in temperature—whether heat wave or light frost—might send them to the scrap pile instead of into the fight.

You see, it takes many days to cut teeth for one of these big propulsion gears. And work done in the last hour must be as accurate in results as the very first cut. If, somewhere in the process, a temperature change causes uncontrolled expansion or

contraction of the metal, it becomes impossible to maintain uniform precision.

In this case, G-E air conditioning and industrial refrigeration team up to keep production humming—regardless of weather. Air conditioning maintains uniform temperature in the cutting room. Industrial refrigeration cools the cutting oil. Together they eliminate the temperature hazards and permit precise matching of gears.

For exacting applications like

these, General Electric has developed efficient and dependable air conditioning and refrigeration equipment that provides accurate control of temperature and humidity. Available for war production uses now... it will be available for all uses after the war.

☆ BUY WAR BONDS ☆

General Electric Company, Air Conditioning and Commercial Refrigeration Divisions, Section 444, Bloomfield, New Jersey.

Air Conditioning by
GENERAL  ELECTRIC

Hear the General Electric Radio Programs: The "G-E ALL-GIRL ORCHESTRA", Sundays, 10 p. m., EWT, NBC... "THE WORLD TODAY" News, Every Weekday 6:45 p. m. EWT, CBS

Draft Shuffle Benefits Industry

Hundreds of thousands of workers will be deferred as a result of Selective Service dictum liberalizing view of essentiality and giving local boards more power. All 1-A's to be reviewed.

Liberal deferment policies ordered by National Selective Service under its new program constitute the first real break that industry has got under the draft since 1942 when the pressure began.

• Drastic Revision—The new rules will enable essential industries to retain hundreds of thousands of employees whom they wrote off as lost to the draft and will permit many establishments not previously rated as essential to claim the right to protect many of their older employees.

Group by group, the new rules will be applied as follows:

Men under 26—Only key men vitally needed by critical war production will be deferred. All deferments must be approved by the state directors.

Men 26 through 29—Men who qualify as "necessary to and regularly engaged in an activity in war production or in support of the national health, safety, or interest" will be deferred.

Men 30 through 37—All men regularly engaged in essential activities will be deferred, regardless of the type of job done.

Men of all ages already in 1-A—Draft boards are directed to review their classifications in accordance with the new regulations.

Men qualified for limited military service, or disqualified for any military service—They will be placed in deferred classifications—2-A and 2-B—as long as they are regularly engaged in essential activities.

• Blanket Stay Remains—While draft boards are doing the necessary reclassification work and until the pool of men under 26 is exhausted, the blanket stay of induction applying to all men over 26 in essential activities will remain in effect.

Maj. Gen. Lewis B. Hershey, director of Selective Service, has stated that the pool of men under 26 will last until early fall. State draft quotas will be adjusted so that all states will exhaust their supply of men under 26 at approximately the same time.

Then, those in the 26-through-29 group will be called. Those 30 and over in essential activities may never be called, unless the war takes a bad turn and steps up the military's need for replacements enormously.

• Who Will Be Taken—While the under 26 pool is being tapped, the follow-

ing classes of men over 26 will be taken simultaneously:

Registrants who volunteer.

Registrants who are delinquents in reporting to their board.

Registrants who leave agricultural employment without the permission of their local board.

Those not in essential activities.

• More Authority for Boards—For purposes of the regulations, the registrant's age as of the date of any board action shall apply.

One feature of the new rules is to place additional authority over deferments in the hands of local boards which have become increasingly restive under the increasing pile of directives from Washington.

The existing list of 35 essential activities established by the War Man-

power Commission will continue to guide broad deferment policies, and, said Hershey:

"Under present circumstances, local boards are warranted in determining that many activities not contained on this list are in support of the national health, safety, or interest, and it is the responsibility of the local board to make this determination in each registrant's case."

• Community Determines Need—Activities which may be included in some localities are those relating to public utilities, food, clothing, fuel, housing, health, safety, and other services required for the "preservation and effectiveness of the life of a nation at war."

In other words, store clerks, restaurant and laundry employees, and others now may be deferred if they are vitally needed in a particular community.

• 1-A List to Shrink—The pool of men in 1-A should be reduced by reclassification from 2,250,000, its present size, to a much more manageable size—just large enough to fill the immediate needs of the armed forces. The bulk of the 2,250,000 has a good chance of securing deferred ratings.



INVASION TACTICS

Extremely important to an invasion are adequate supply lines to carry munitions and fuel to the men and machines. Hitler's failure to look far enough ahead cost him his chance to cross the Channel in 1940. Since then the Allies lifted communications into

the air to assure victory in their Channel crossing. Under this method—worked out to split-second timing in final maneuvers in Britain—air-borne invaders carry with them only a few days' supplies which are replenished in bundles that are dropped by parachute. The chutes are colored for quick identification of their cargoes.

Track Clears

Contract termination bill, passed by Senate after a long delay, faces complications and hard fight in the House.

Prospects for legislation authorizing quick settlements on terminated war contracts have brightened considerably within the last two weeks.

The Murray-George bill has just coasted through the Senate after long preliminary maneuvering. Although House leaders still haven't succeeded in getting a clear track for a termination measure, they hope they can use the Senate bill to break a committee deadlock.

• **Approved by Baruch**—The Murray-George bill is not tagged as an Administration measure, but it has received the blessing of Bernard M. Baruch and John M. Hancock who head the postwar unit in the Office of War Mobilization. The main thing that delayed it in the Senate was the question of whether termination provisions should be passed separately or combined with legislation on surplus disposal and demobilization of soldiers and war workers.

• **Bills Combined**—Originally, Sen. James E. Murray introduced the termination provisions in a separate bill.

Then, Sen. Walter F. George incorporated them into the omnibus demobilization bill based on the report of his postwar planning committee.

When debate over the George bill showed signs of stringing out indefinitely, George and Murray went into a huddle with Hancock and agreed to push a revised version of the first Murray bill through separately. When the bill finally came up, it passed the Senate without a dissenting vote.

• **Trouble in the House**—In the House, however, termination bills have encountered a strong division of opinion as well as a long standing fight among various committees.

The House Military Affairs Committee is pushing a bill which would place the negotiation of settlements on terminated contracts under the supervision of the Comptroller General. In opposition to this idea the Naval Affairs Committee has worked up a bill giving the procurement agencies control over the termination settlements but allowing the Comptroller General's representative to sit in on negotiations.

The Murray-George bill, which goes to the House Judiciary Committee, would put termination settlements in the hands of the procurement agencies, giving them additional power to make advance payments and interim loans. The Comptroller General would be limited to investigations in cases of suspected fraud and he would have power

to make recommendations. Otherwise the settlements arranged by the contracting officers would be final.

• **Would Create New Agency**—At things look now, supporters of the Murray-George bill have enough strength to get House approval for its main provisions. If so, the final version of the termination law will line up something like this:

(1) It will give the various contracting agencies—Army, Navy, Maritime Commission, and others—authority to negotiate final and conclusive settlements with contractors whose contracts have been canceled for the benefit of the government.

(2) It will create an Office of Contract Settlement, headed by a director, to coordinate the activities of the various agencies and make detailed rules out of the general principles laid down by the act. Advising the director will be a Contract Settlement Board consisting of representatives of the Army, Navy, Maritime Commission, Treasury, Foreign Economic Administration, Reconstruction Finance Corp., WPB, Smaller War Plants Corp., and the Attorney General.

(3) The services will be empowered to make advance payments on settlement up to 100% of the amount due on completed items and 90% of the cost of work done on unfinished articles, plus a reasonable allowance for overhead. They also will have wide authority to make loans to contractors while settlements are pending or to guarantee loans made by commercial banks.

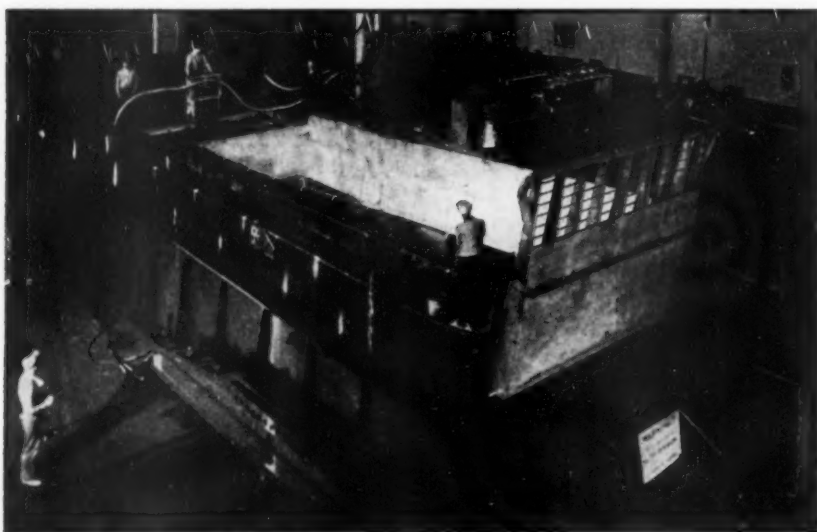
(4) As a general rule, subcontractors will work out their settlements by negotiation with their prime contractors, subject to ratification by the procurement agencies, but contracting officers will have authority to settle claims of subcontractors directly in any case where they consider it necessary or desirable.

(5) If the procurement officer and the contractor cannot reach an agreement on the settlement, the agency will be authorized to make a unilateral determination of the amount due, but the contractor will have the right of appeal, either to the U. S. Court of Claims or to a special appeal board which will be set up by the Director of Contract Termination. If negotiations proceed too slowly to suit the contractor, he will be able to demand a unilateral determination within 90 days and use this as a basis for going to court. Within 30 days after a unilateral finding by the procurement agency, it will have to pay the contractor at least 90% of the amount it judges to be due him.

(6) Procurement agencies will be directed to remove all government-owned material and equipment from private plants within 60 days after the contractor files inventory lists. If the agency fails to do this, contractors will be authorized to move any government-owned property and store it at the government's expense.

(7) Defective or informal contracts, made in good faith, would be legalized and treated as though they were sound from the beginning.

• **Favored Generally**—Contractors in general like the Murray-George bill, but



INDOOR LAUNCHING

To test-launch its LCM-3 (Landing Craft—Medium) barges far inland, the Navy-owned Warren City Mfg. Co., Warren, Ohio, uses its own "ocean"—a 34,000-gal. tank. Hulls are thus checked and diesel power plant

gets a two-hour break-in before the 25-ton boats are loaded on gondolas for shipment to tidewater. Designed to land medium tanks and small units of men, the 50-ft. LCM-3's are among the most urgently needed items. With more than 20,000 on hand, the Navy wants 80,000 by the year's end.

they think the final results will depend largely on the way the procurement agencies use the authority that is given them.

One feature of the bill that would help speed up settlements is a clause exempting procurement officers from personal financial liability in cases of overpayment made in good faith. Another is the section authorizing officers of one procurement agency to settle claims against contracts written and terminated by another agency. This would open the way to company-wide settlements if the services were willing to try them.

• **Hard Fight Likely**—No matter what the House does about the Murray-George bill, Congress will continue to wrestle with postwar legislation for some time. Sen. Murray already has announced that his Military Affairs subcommittee will bring in a bill covering other aspects of industrial demobilization as soon as the full committee has time for it. He and Sen. George hope to grease the wheels, but the chances are that they will have a hard fight when the bill reaches the floor.

Biggest stumbling block is the question whether Congress should set up a separate demobilization agency or let the Administration run the show.



REPORT ON POSTWAR

Secretary of State Cordell Hull (left) listens while his under secretary, Edward R. Stettinius, Jr., reports on the postwar ideas of the other two-thirds of the Big Three—Britain and the Soviet Union. As roving diplomatic reporter, Stettinius recently returned from London where he plumbed the British stand on key economic and po-

litical issues; in Morocco caught a reflection of Soviet thinking along the same lines from W. Averell Harriman, United States Ambassador to Russia. His notes will have a definite influence on the formulation of U. S. policy on such postwar issues as world trade, aviation, relief and rehabilitation, cartels, the fate of Germany, as well as the more temporary issue of controlled commodity buying.

Corn Is Processed

Under impetus of freeze and incentive, all but a few "official" processing plants have been reopened.

Despite the grain trade's advance doubts, the government corn freeze order combined with a 5¢-a-bushel incentive above the price ceiling (BW—Apr. 29 '44, p. 18) had by midweek produced adequate supplies of corn to reopen all but two or three of the processing plants on the official list designated as essential for war materials.

Corn Products Refining Co.'s Argo (Ill.) plant—the world's biggest—resumed operations last Friday, and the company got enough corn rolling toward its plants at Pekin, Ill., and Kansas City to let them resume this week at a rate well above their previous 40% operation. American Maize Products Co., Roby, Ind., reopened on Monday.

• **Iowa Roads Muddy**—Most of the corn recently released has come, surprisingly, out of Illinois instead of Iowa. Of about 35,000,000 bu., or more than three months' needs of the designated processors, pledged for immediate sale by farmers, more than 20,000,000 bu. is Illinois grain. The reason is that Iowa

back-country roads are bogged down in unprecedented late-spring mud that hampers both the Agricultural Adjustment Administration committeemen who are taking the pledges and the farmers who would have to haul to town any corn they promise to sell.

Expectation of grain buyers on the Chicago Board of Trade is that as soon as the roads dry up, lots of corn will move out of the freeze counties beyond the Mississippi, particularly from western Iowa and eastern Nebraska. Unquestionably there is much more corn in Iowa than in Illinois. But also there may be enough additional livestock there to cut the corn surplus surprisingly low.

• **Can't Buy Corn**—Feed millers are in the depths of despair. The freeze order prevents their buying corn in the nation's 125 principal cash corn counties, drives them to the fringes of the surplus belt.

Feed grinders are getting some South American barley and Canadian oats. If, however, sufficient corn is soon assured to supply the small list of war-essential wet processors and dry millers the 80,000,000 bu. they need for the rest of 1944, the feed industry can hope that the list will be revoked before its scheduled expiration on June 24, throwing the stocks of cash corn open for purchase by anybody at ceiling prices.

Meat Sales Up

But the packing industry isn't ready to appraise results of point-free buying. Livestock producers remain gloomy.

General jubilation greeted OPA's announcement late last week that all meat except the fancy cuts of beef is now point-free. Stockmen, packers, meat dealers, and steak-hungry consumers received the news joyfully.

In many cities retail stores, caught with only their normal week-end refrigerator stocks, were completely sold out of meat by early Saturday afternoon.

• **Hard to Evaluate**—Packing house shipping departments have been unable to keep up with the soaring sales. But sober heads in the trade agree that the first week's experience with the new schedule cannot be conclusive. The typical housewife, during the days when all meats required ration points, kept her point budget spent and her icebox bare of meat.

Last week end's sudden buying spree might have come merely because she was replenishing her stock of meat products to prerationing levels and in

Point-Free Meats Create New Problems

OPA was busy this week straightening out odds and ends that were overlooked when most meat point values were reduced to zero. Officials were finding that it is almost as complicated to suspend rationing as to inaugurate it. Here's a sampling of the adjustments that were necessary when all meat (except prime cuts of beef) became point-free:

(1) Businesses operating under OPA suspension orders that prohibit them from handling rationed meats were told they could again stock those meats with point values now at zero. Technically, OPA could still enforce suspension orders since meat has not been taken off the ration list, but enforcement lawyers don't believe they could get any court in the country to back up a suspension order on a point-free item.

(2) OPA reminded the trade that it must take inventory of all items which have been reduced to zero. In addition to inventory taking, all requirements relating to reporting and transferring of meat are still in effect.

(3) OPA was obliged to redefine hamburger (now point-free) to exclude any meat from the forequarter which is the source of rationed steaks and roasts.

(4) Trade point values for beef were readjusted to take account of the fact that part of a side of beef

ultimately will be point-free to consumers while part will have a high point-value.

(5) OPA is getting ready to cut meat allotments to institutional users so that they will not be able to use the points that have been freed by cutting most meats to zero to buy up all available supplies of roasts, steaks, butter, and cheese.

• **Distribution Trouble**—Rationing has a two-fold purpose. It controls total supplies, but it also controls distribution. OPA is having some distribution trouble in the wake of its zero point values. New York and other eastern cities, for example, are complaining that they aren't getting any lamb and veal. OPA expects this trouble to continue, but doesn't think lamb and veal would have moved at all if it had been left on the ration list and pork taken off.

Thus, when lard was made point-free, OPA had to take vegetable shortenings off the ration list because they just weren't moving. This forced a slash in oleomargarine.

Rationing officials believe, however, that with a liberal point allowance for the items that remain on rationing, consumers think enough of beefsteak, butter, and cheese to spend stamps for them.

long-run terms of eating more meat may mean exactly nothing.

• **Survey in Process**—The packing industry, including the big outfits like Armour and Swift, admits it does not yet know how the ration-point revisions will affect business. The American Meat Institute is currently making a survey, and thus hopes to learn within two weeks precisely what has happened to consumer sales of meat and meat products. The trade guesses a stepup of 10% to 15% so far.

It did not take long for the more thoughtful consumers and businessmen to subject their original elation to gnawing doubts. What started them worrying was the bitter that OPA included with the sweet: a 50% cut in the consumer's allotment of ration points. Now 30 red points must be stretched across four-week needs in butter, margarine, beef roasts, and steaks.

• **Butter Before Beef**—The beef-eaters, a surprisingly large proportion of people who like no other meat, let out the first squawk. They faced not a generous increase in their meat allowance but more than a 50% cut in their beef consumption. From the reduced number of

points allowed, they must also deduct their breadspread requirements.

Consider the plight of an executive in one of Chicago's largest packing companies. He and his wife want beef or no meat at all. Before last week's order, they spent their 120 red points every four weeks as follows: 48 for 3 lb. of butter; 72 for 7 lb. to 10 lb. of beef roasts and steaks. Now their 60 points must be divided: 36 for 3 lb. of butter; 24 for a couple of 1½-lb. steaks. With one steak in sight every fortnight, it looks like a bleak summer for them.

• **Threat to Volume**—Men in the livestock and meat industry suspect their summer may be bleak. A major food chain has its statisticians working overtime to refute or confirm the management's curbstone estimate that customers previously used 75% of their red points on the items which were not removed from point requirements last week, used only 25% on the items now made point-free.

If the customers try to maintain the same proportion of still-rationed materials in their diets, they will be able to purchase only two-thirds as much of

these goods. Such a reduction in total sales can bring a major cut in net profit for any food merchandiser operating in chain-type narrow margins and already hard hit volumewise by other rationing.

• **Two Possible Courses**—Meat packers also like volume. But, even more, they yearn for restoration of the consumer demand which used up all parts of all animals of all species that they killed. They were able to maintain this even flow of product to consumption in the prewar days.

They see two long-pull possibilities in the new ration-point schedule. The optimistic view is that it may relieve pressure of surplus supplies both of meat and of livestock.

• **Storage Problem**—To do this, it would have to pass into consumption the stored product now jamming warehouses, much of it left over after government buyers have picked out the choicest cuts.

Sadly enough, the immediate boost in demand was for beefsteaks and pork chops, both already tight. Also, to meet these cheerful expectations, demand must absorb the hogs now swamping Corn Belt markets.

• **From Bad to Worse**—The pessimists assert the average consumer and her family were already getting all the meat they want. Sole exception: quality beef. Even before last week's order she could not always find this at her dealer's when she shopped with a pocketful of saved-up points. It is still short and rationed, and cheese and butter are also still short enough to be under point control.

In support of this theory, the pessimists cite OPA's concern over millions of red points unspent by consumers, and housewives' notorious tendency to pay points with coupons and hoard the change tokens. If the new point schedule releases extra demand for these scarce products, it could compound a bad situation.

• **Restaurant Cheer**—Meat lovers who gagged at restaurant menus and meatless days are already getting their dividends. But for a few days after the order, there was little improvement—because chefs were using up inventories of poultry, fish, and eggs.

Livestock growers remain gloomy. They had been screaming for abolition of meat rationing. They grudgingly say the current change is too little and too late.

• **Still Too Many**—Hog congestion at stockyards is worse than at any time last winter. Receipts are smaller, but slaughter and storage capacity are so reduced (BW—May 6 '44, p20) that the runs are proportionately greater.

The Corn Belt Farm Dailies ascribe present heavy marketing to discouragement among producers. This view holds

that farmers are liquidating their hog herds, many of them cutting too far. This could lead to a serious pork shortage a year from now, and an oversupply of feed grains.

• **Ample Beef for a While**—Feed shortage, rather than discouragement, is bringing cattle to market. There should be plenty of beef until the western range cattle surplus runs out, probably next fall. Consensus at Chicago's Saddle and Sirloin Club predicts a serious beef shortage by next Christmas.

The danger in beef supply—and in lamb—comes because commercial feedlot operators, and also farmers who normally buy a carload or two of thin stuff to feed their grain to, this year simply passed the hand. They lacked confidence, believed that Washington might let feed prices rise, but meat never.

Since 80% of the beef critter as it comes to market in full-finished condition is made on grass, the rest on feed grain, every range steer or heifer shipped to slaughter instead of to feedlots represents a serious loss of edible meat.

• **Volume Drops**—What is happening is shown by figures recently released at Kansas City, where the greatest volume of feeder cattle and sheep is handled.

Total Stock Shipments to Feeders
(Kansas City Stock Yards Co.)

	March		First Quarter	
	1944	1943	1944	1943
Cattle ...	27,503	75,404	96,448	167,517
Sheep ...	9,492	43,995	42,467	123,738



MUSCLE SAVER

Loading and unloading baggage or freight is duck soup for the feminine airport attendant using the new mobile conveyor. Wheeled to the cargo hatch, the electrically driven belt quickly does the job that normally requires several huskies and high ladders. Developed by Pennsylvania Central Airlines, the "cargoveyor" is built by St. Paul's Standard Mfg. Co.

Ward Case (Cont.)

Struggle between union and mail-order house begins all over again as government withdrawal averts court ruling.

Enmeshed in a legal net, much of which it had itself woven, the Administration cut itself out of the Montgomery Ward case at 7 p.m. on Tuesday of this week by handing back the mail-order properties to the Sewell L. Avery management.

• **Pyrrhic Victory**—The time and date are important because at that hour of May 9, the polls closed in a National Labor Relations Board election which decided whether Ward's employees again chose to be represented by the C.I.O. union whose strike had led to government intervention. Results showed that they did in both the company balloting units by a total vote of 2,440 for the union to 1,593 against. But keeping the union from enjoying the fruits of its victory was the hard fact that when the last ballot box was sealed, not even the government believed it had any right to continue to run Montgomery Ward.

Washington had based its action in seizing Ward's plants on a directive order issued by the National War Labor Board when a contract between the union and company expired last Dec. 8. Ward objected to renewing this contract because it claimed the union did not speak for a majority of its employees.

• **Provocation to Seizure**—NWLB directed the mail-order house to continue that contract in force until the representation question could be cleared up. When the company refused, the Administration moved to enforce NWLB's directive with action that led to plant seizure.

By the terms of the labor board's order, the company's defiance of the government ended with the election for the simple reason that no further directive was on record which the company could defy. NWLB's case is closed.

• **Political Hot Potato**—Rubbed raw by criticism of its handling of the case and by charges that its methods were unconstitutional, Washington clearly declined to pull hot chestnuts out of the Ward fire for the union when no basis remained for staying in control of the situation. Although the Administration has demonstrated that it can make a regiment run where a writ cannot, there will be others besides union members voting next November, and politics,

if nothing else, dictated that, in this heated controversy, potential candidates be careful of getting scorched.

A second move made Washington withdrawal from the Chicago scene virtually complete. It consisted of asking U. S. Judge William H. Holly to dismiss the litigation which was being avidly watched for a court pronouncement on Roosevelt's right to seize the allegedly nonessential Montgomery Ward enterprise.

• **Court Case Closed**—On grounds that the return of the properties to private management left him with no legal issue before him, Judge Holly dropped the case without a ruling. A technicality, arising out of the company attorney's plea that the suit be dismissed by the court only "with prejudice," held a Dept. of Justice lawyer in Chicago a while longer, but for all practical purposes, the government's law case, like NWLB's labor case, was closed.

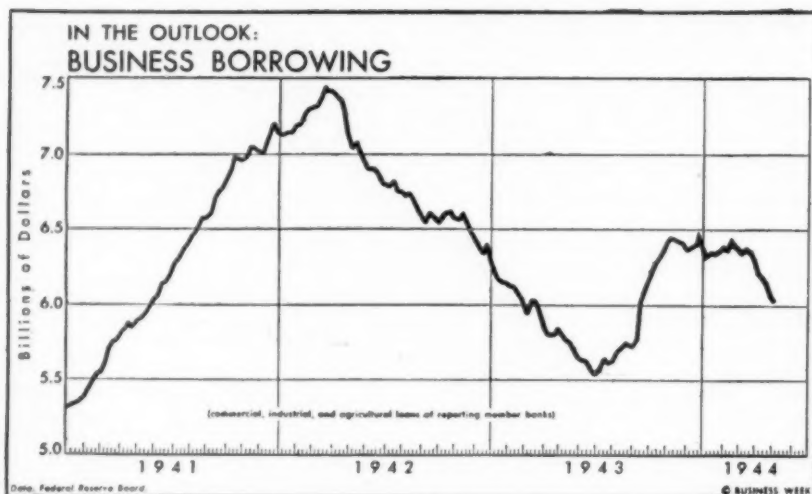
This did not mean that either the litigation or the labor dispute was suspended. It meant only that the initiative has passed into other hands.

• **Union Demand**—While the government was still picking its exits, the two old adversaries, Ward and the C.I.O., buckled on their armor for another battle in their four-year old war. The union dispatched a heated telegram to the NWLB demanding that the board "immediately extend and enforce the con-



MIDGET FLATTENER

A new baby roller used for street repairs at Knoxville, Tenn., combines utility and mobility. Equipped with retractable rubber-tired wheels for speedy towing to the site of the job, it goes into action under its own gas-engine power. The machine, built by Cincinnati's Littleford Bros., has the capacity of a five-ton job, according to public works officials.



Does the six-week drop of \$400,000,000 in outstanding bank loans to business augur a new trend? Tentatively, the evidence says no. Looking back, the rise in 1941 clearly was due to general business expansion; the decline in 1942 and early 1943 reflected repayment of merchants' loans to finance inventories and consumer credit; this debt hit bottom in mid-1943, and then expanded, seasonally, toward the Christmas trade peak. A

resumption of the decline was resisted in the first ten weeks of 1944 because of borrowings to buy bonds in the Fourth War Loan drive and to pay Mar. 15 taxes. It is only now that these loans are being repaid that the seasonal fall in trade loans is showing up. At least, this is the plausible reason now; but new trends—such as liquidation of V loans or paring of inventories to meet contract termination problems—may be major factors.

contract until such time as a second contract will be signed."

But, with its leaders muttering angrily about a "sellout," the union gave no sign of being willing to temporize until the government machinery got out of reverse gear and into forward speed again. Its officers made a quick canvass of member sentiment and began laying plans for another strike.

• **Union Losses**—The union's position is as precarious as it has been at any time since its representatives first talked with Ward management more than two years ago. Attributable in large part to the company's high labor turnover rate, the union's majority has dwindled, but, even more important, its inability to service its members for the last five months has probably whittled away an appreciable amount of employee loyalty. (all of which lay behind its earlier demand for continuance of the old contract with the important maintenance-of-membership clause—and behind its demand for a renewal of that "m. of m. contract" following this week's poll).

Since the old contract expired, grievance cases involving discharges, demotions, and other serious matters have been piling up. They could not be settled with the company, and the amorphous government operators who were

in possession for 13 days told the union they could not be considered until after the NLRB election. With no concrete benefits like wage boosts to be looked for as a result of its new certification as bargaining agent, the union feels that it must get the grievance handling procedure operating quickly or face widespread desertions.

• **Management Charges**—The company's position, which the union interprets as a declaration of continued warfare, is that, in the words of Avery, "The election doesn't mean a thing." This statement was followed by company charges that the seizure's only purpose was to influence the employee balloting.

A court test of the validity of the election seems assured. Grounds may be found both in the influence charge and in an earlier company assertion that government employees are not covered by the Wagner act and that everybody who voted this week was working for the U.S.A. Added to this, in the way of scheduled law work, is an expected damage suit over the claim that Ward business fell off between 30% and 50% because of government operation.

• **More Trouble Ahead**—Meanwhile, congressional committees are pushing their investigations and NWLB has referred the Hummer Mfg. Co. (a Ward

subsidiary) case to the White House for action because of employer defiance of board order. The C.I.O. will bend every effort to put a Montgomery Ward case back on NWLB's docket if only to get an unequivocal answer to this week's biggest home-front question: Was the inept legal preparation solely responsible or did the government abandon the Chicago line because Franklin Roosevelt finds Sewell Avery too hot to handle?

If the union does get its case on the NWLB docket and does force another showdown, backed by the threat or actuality of a strike, the whole drama, complete with a second takeover of the plant, may be replayed. But Washington observers are saying that there would be important differences: Sewell Avery and not the government would be on the defensive; the union would have demonstrated its majority in the NLRB poll; Sewell Avery would appear to have been given a second chance to settle the row; and the Administration would be able to avoid the tactical blunders it made this time.

Detroit's Fever

Wave of strikes in motor capital blamed on war jitters as much as on traditional causes by unionists and management men.

The recent outcroppings of unrest on the labor front have followed a fairly typical pattern of unsettled grievances magnified in the eyes of the aggrieved by the tension of war.

• **Traditional Hot Spot**—As in the past, Detroit, the nation's hot spot, became the focal point for the outward manifestations of unrest. There, unions affiliated with both the C.I.O. and the A.F.L. as well as one of the largest single independent unions in the motor capital cracked under the tension and went on strike.

This week more than 15,000 employees of ten Detroit companies were on strike, in addition to 500 Detroit painters and, for a time, all the A.F.L. seafarers who man the Detroit-Cleveland vessels on the Great Lakes. And the fever had spread to 14,000 Ford of Canada workers in Windsor, Ont., and to another 1,000 Chrysler workers at nearby Marysville, Mich.

• **Jitters**—The war has imposed a strain on workers and management alike. Higher pay, plus a desire to miss nothing which money can promise or buy, is one factor. Worry over relatives at the front, longer hours, and postwar uncertainties are other factors of war tension.

Out of these psychological factors

an impatience with orthodox
approaches and situations. Add to the
theses thus accumulated such final
as the relatively minor disputes
upset the Detroit people, and
strikes follow.

As these explanations seem
they have well qualified adherents.
Recent private conversations, Walter
Pier, vice-president of the C.I.O.
and Auto Workers, has mentioned
strain factor as a grave problem in
relations. On the management
key labor advisers are concerned
the effect of strain on their own
atives.

Act of Campaign—Superficially, how-
the strikes sprang from unrelated
At 13 plants of the Briggs, Hud-
Murray, Gar Wood, Aeronautical
acts, and Packard companies, fore-
were on strike (BW—May 6'44,
In each case, the Foreman's Assn.
America proclaimed a different griev-
in behalf of its members. But
itted into the F.A.A.'s campaign
recognition by the National Labor
ions Board and the National War
or Board.

NLRB has withheld recognition on
precedent of its Maryland Drydock
ion (BW—May 15'43, p8) that fore-
do not constitute a unit appropriate
collective bargaining purposes.

They're Employees—This week, the
relations board backed down a bit
much, but enough to reward the
men's association for its strenuous
The board decided that for pur-
of Wagner act protection against
aminatory discharge, foremen are
employees in the same sense that the
whose work they supervise are em-
ees, and therefore cannot be fired
activity in their own union.

The board thus reversed its regional
its in Detroit and Cleveland, which

had refused to entertain F.A.A. charges
that Soss Mfg. Co. and Republic Steel
Corp. had dropped foremen for union
activity (BW—Feb. 26'44, p104).

But the board reiterated its Maryland
Drydock doctrine that foremen do not
constitute an appropriate bargaining
unit—decreeing, in effect, that their or-
ganizational activities will be vigorously
defended against management inter-
ference, but after they're organized, they
can't expect NLRB to force employers to
recognize their union.

• Ford Signed—It was only half a loaf,
but the F.A.A. snapped it up. The pos-
sibilities implicit in even half-hearted
recognition from Washington were dra-
matized almost simultaneously when the
foremen's union concluded negotiations
with the Ford Motor Co. and obtained
a signed contract.

Washington offered another fragment
of encouragement next day. NWLB,
which last week sternly ordered the
striking foremen back to work without
committing itself on the paramount
question of recognition, also backed
down a bit. This time, the board offer-
ed its intermediary services if the
strikers would return. Again it was half
a loaf, for, as the board pointed out, it
could do nothing about the F.A.A.'s
plea for collective bargaining recogni-
tion or about other matters which lie
within the jurisdiction of NLRB.

• An Exit—But, on the heels of the
NLRB decision, it afforded the foremen
a graceful exit, if they wanted it, from
the unequivocal stand they had taken
against returning to work without attain-
ing their objectives.

The true causes of the other strikes
were harder to isolate. Outwardly the
causes were simple—a time study dis-
pute at Republic Aircraft, the reclassi-
fying of six workers at DeSoto, dis-
charge of a steward at Kelsey-Hayes,

and so on. But basic causes seem to
lie deeper.

• Controls Are Slipping—Inability of
the U.A.W. to control its membership
was emphasized by the continued ap-
peals and demands by the union on its
locals to go back to work.

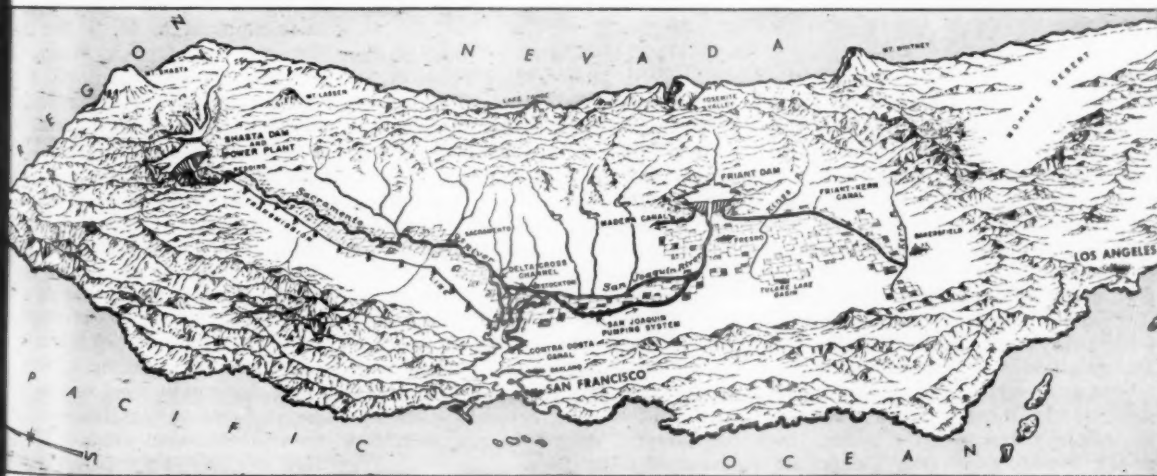
Detroit union leaders growl at what
they term vacillating and erratic poli-
cies by NWLB. No line except the
wage line has been held by the board,
say the unionists; and they view that
line as untenable and trouble-provoking
because of living-cost rises.

Beyond that, factionalism still exists
in U.A.W. Unnoticeable for a time
after the Buffalo convention last year,
it evidently went underground. It may
be emerging. Factionalism broke into
the open on the West Coast last week,
when oppositionists charged their re-
gional director, Lew Michener, with
laxness and communist collaboration.
A committee headed west to investi-
gate.

Valley Divided

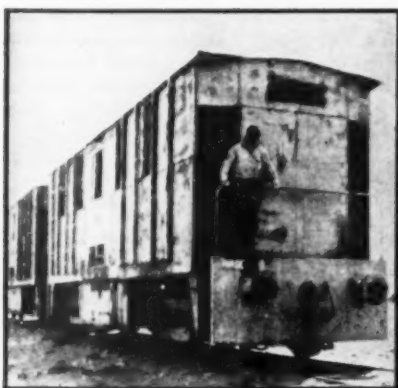
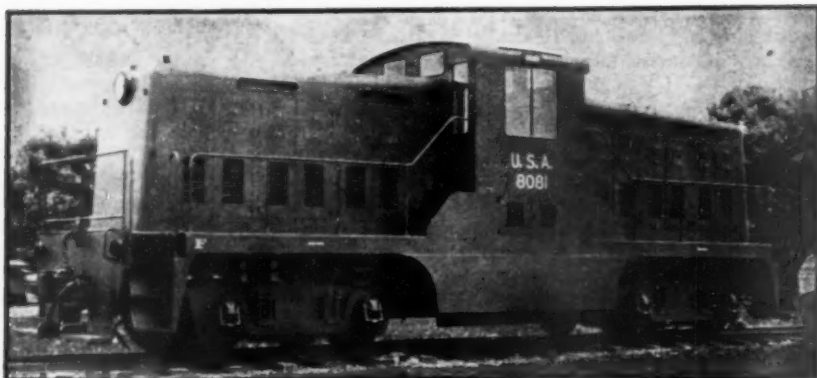
California splits over use
of irrigation water from Central
Valley. Limitation to 160-acre
farms causes furor.

Eleven years ago the state of Cali-
fornia formally resolved that something
should be done to convert its great
Central Valley—500 miles long and 50
miles wide—from semiarid into fertile
land. Today, that has become virtually
an established fact, thanks to the erec-
tion of Shasta Dam and Friant Dam
and to the digging of canals, which have
the net effect of carrying the waters of
the Sacramento River farther south into



government's Shasta and Friant Dam projects make
Central Valley of California a center of controversy

over the distribution of water for farm irrigation.
When Shasta power comes in, another fight will rage.



LUFTWAFFE FOOLER

Because locomotives are always main targets of aerial attack, train haulers now going overseas for the Army are well camouflaged. This is done effectively by simply adding a dummy roof and side panels to the diesel-electric job (above) made by Whitcomb Locomotive Co. For all intents and purposes of an enemy bomber, this transforms a prime objective to look like a European-type boxcar (left).

the drier and less-favored San Joaquin end of the valley.

● **Irrigation Issue**—But today the question of who should benefit from the \$265,000,000 Central Valley Water Project has become a national issue, a subject of hot debate in the halls of Congress. The primary issue is whether the irrigation benefits shall be reserved to small land owners living on family-size farms or whether they shall be made equally available to the valley's large corporate agricultural enterprises.

The second and definitely subsidiary issue is the old one aroused by the Tennessee Valley Authority and Bonneville, the issue of public power versus the private utilities.

● **Got Federal Aid**—The haphazard development of the Central Valley project explains why these issues arise now, seven years late. After years of discussion, speculation, and surveying, the project was actually set up by the state in 1933. But it was little more than a paper project, for the state lacked funds to swing a job of this size. First federal funds were actually provided under the National Industrial Recovery Act.

Four years later, with Congress providing funds, the Bureau of Reclamation officially took over the project, involving flood control (the Sacramento River used to go on a wasteful rampage in the spring before its waters were impounded behind Shasta Dam), irriga-

tion, power, as well as navigation.

● **Acreage Restriction**—When the Reclamation Bureau took over, the provisions of the U. S. Reclamation Act of 1902 became binding. In effect, the act says that water from a bureau project may not be supplied to more than 160 acres under one ownership.

Trouble arises in California's Central Valley because there are many large land holdings that have come down unbroken from the days of Spanish rule, estates that are worked on the hacienda pattern by hired hands with no ownership interest.

● **Big Holdings**—Many of these estates are in Kern, Madera, and Tulare counties in the southern end of the valley, where, incidentally, the relief rolls were unusually heavy during the depression (even as late as 1939, some \$16,388,000 was spent in those three counties on relief). Largest holding in the valley is that of the Kern County Land Co., near Bakersfield, which owns some 50,000 of the 2,000,000 acres in the valley.

● **Who Gets the Gravy?**—The big point of the fight is not just who is going to get the water and who isn't, but who is going to be able to cash in when \$5 range land suddenly becomes worth several hundred dollars an acre with the advent of water.

The controversy took on national proportions in March when Rep. A. J. Elliott of Tulare, Calif., succeeded in

getting the House to pass a rider to the 1944 rivers and harbors bill which all acreage restrictions on the supply.

Canceled likewise are the provisions that would enable the state to withhold water beyond the 160-acre limit; and withhold all water from a landowner had agreed to trim his holdings down to 160 acres, plus an amount to use half the excess production might get for acreage he sold, on the appraised value of his land "to be applied on his payments to the government for the improvement.

● **Tricky Law**—Nature herself, plus California's water laws, would make it to enforce any acreage limitations. If the valley's water supply is coming in deep strata whence it is raised by pumping, and the California law provides in effect that water is owned until reduced to possession. So a new water would seep from the canals into the substrata, there is entirely no legal way to keep large owners from getting all they want, pump, regardless of whether their water were supplied by the surface canal.

The Farmers Union, the A.F.L.-C.I.O., plus some California newspapers, have come out for trying to bring about a splitting-up of the holdings. The American Farm Bureau Federation and the landowners' water district associations generally lined up in favor of taking off the acre limitation. The latter argue it is uneconomic if not impossible to apply limitation and that it will bring about great hardship and impairment of the holdings.

They also point out that the acre limitation has been lifted in the case of other projects where the government has supplied supplemental water to ready-existing irrigation districts.

● **Arguments for Limitations**—A memorandum to U. S. Sen. Stephen M. Downey of California, Marion Clark of the Dept. of Agriculture's Bureau of Agricultural Economics presented arguments in favor of keeping the 160-acre limitation. He argued that lifting the limitation would constitute a departure from the established practice that should be made only after study, if at all. Further, he contended that the limitation results in "communities of independent farmers who will make homes on the land, better community institutions, stable business, better schools, a more democratic rural society." He said, inure for thousands of California's returning veterans (plus farmers now working in war plants) a home on the land if they so desire.

● **Hearings at Capital**—With a Subcommittee on Commerce and

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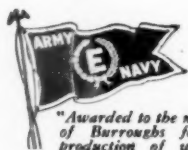
There are also the immense projects of maintaining adequate reserves of fuel, bombs and supplies, preparing and maintaining vast airfields, training and housing personnel, establishing far-flung weather observation posts, and developing new weapons and techniques.

The scope of the air war is vast. Its aims, accomplishments and limitations must be interpreted statistically for better understanding and accurate planning. Thousands of fast, accurate Burroughs machines are providing indispensable figures and statistics.

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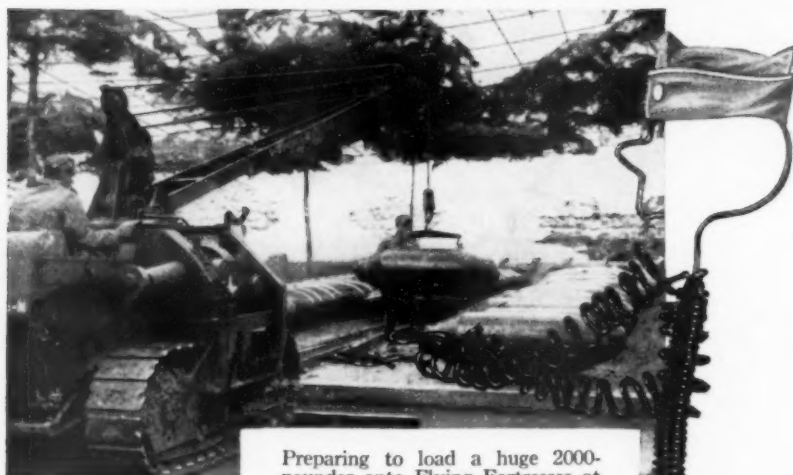
"Awarded to the men and women of Burroughs for outstanding production of war materials"

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Preparing to load a huge 2000-pounder onto Flying Fortresses at the Front. Note the camouflage, supported by a WIRE network.
Press Association Photo.

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Bringing the blockbusters "to the front and center" calls for dozens of hoisting operations . . . from assembly lines onto rail cars—from rail cars to supply centers and steamships—from ships back to rail cars or trucks—and finally onto the bombers themselves. *Wire cable* is the strong sinuous arm that swings bombs ever closer to the enemy . . . trustworthy cable made of wire produced by Keystone and other wire mills. This is but one of hundreds . . . yes, *thousands* of war uses for Keystone wire. Actually many vital parts of bombs themselves are produced from wire.

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hearings this week, prospects were the upper chamber would reverse action of the House which amended the rivers and harbors to provide for lifting of the 160-acre limitation. The issue would then have to be threshed out in conference.

If the big land owners in the valley lose out in this particular fight, they have several other proposals to accomplish their end. One of them is a bill which would authorize the addition to add irrigation and power development to its present navigation and control powers. The legislation would call for construction of a system of irrigation and power projects throughout the country, especially the Central Valley. This would circumvent the 160-acre rule, since the Army is bound by that restriction.

Another proposal, said to have originated among the big landowners in Fresno County, is for the state of California to take over the Central Valley project, paying the entire bill. It, too, would sidestep the 160-acre limitation. Still other landowners are digging wells around their holdings in order to be prepared to pump irrigation water from the raised water table, thus getting a free ride on the Central Valley project.

● **Fight Getting Hot**—The power fight in the Central Valley is just beginning to be a heated issue. Next month the first power production is scheduled to come from Shasta Dam and sent over a public line to the town of Oroville, it will be decidedly hot.

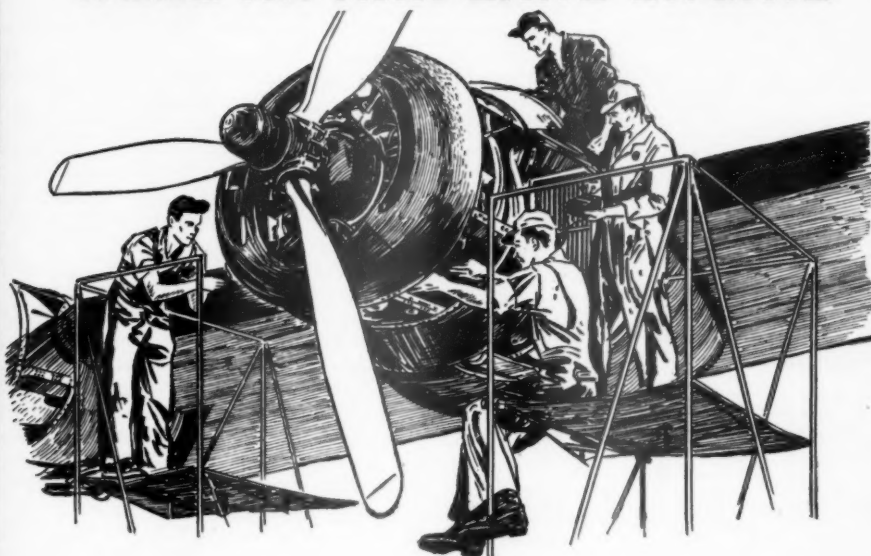
For the present, however, the Gas & Electric hasn't too much to fear from Shasta Dam power, because two of the generators originally scheduled for Shasta were diverted to Coulee, and it will be a long time before Shasta has any sizable block of power to sell. But the construction of the Oroville line is a sore point with P. G. & E., which argues that the Secretary Harold L. Ickes, head of the Reclamation Bureau, seriously stepped his authority in its construction.

Ickes contends that he had authority to build the line with surplus money despite prohibitions imposed by Congress, and he has continued his time attack on P. G. & E.

● **Just Beginning**—Meanwhile, the power company is moving right ahead with its plans to expand hydroelectric capacity. Last month it sent the first installment out of its new project on the Pit River. The power phase of the Central Valley fight, however, is just beginning. Anyone who knows the history of the long-standing feud between the Reclamation Bureau and the Pacific Gas & Electric Co. can well appreciate.

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IF YOU WERE an engine on a giant plane, you'd be checked and tested by experts at regular, frequent intervals.

You wouldn't question the wisdom of those tests, for the reasons are obvious: To discover and remedy or control defects while they are still little—to prevent forced landings.

Now, here's something to think about. You, as a human being, are far more complicated than the biggest airplane engine. And infinitely more

valuable—to yourself, your family, your country.

Periodic physical checkups will help discover possible troubles while they are little and, often, easily remedied.

A physician should make these examinations. An annual medical examination—particularly as you grow older and as doctors return from war service—is the sensible way to avert serious trouble... a possible "forced landing."

Get a Health Examination once a year!



THE MESSAGE reproduced above emphasizes the wisdom of periodic health examinations.

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Pullman to Act

Court gives company 90 days to decide whether to keep its manufacturing or operating setup. Appeal is expected.

The Dept. of Justice won another battle in its long antitrust suit against the Pullman group this week when a Philadelphia federal court in a final judgment ordered the company to divorce its car-building from its sleeper-operating activities. Thurman Arnold, now a federal judge, filed the suit against Pullman nearly four years ago when he was the department's head trust buster (BW-Jul.20'40,p17).

• **Appeal Expected**—Pullman lost a round last spring when the Philadelphia court handed down a decision which fully supported the government (BW-Apr.24'43,p7). It was indicated at that time that Pullman would fight the case up to the U. S. Supreme Court. A company statement issued after this week's decision says that the appeal "may" be taken; if Pullman appeals and loses, the decree becomes effective the day after the Supreme Court makes its decision.

The current decision says flatly that Pullman no longer can operate both as a manufacturer of cars and as an operator furnishing personal service on sleepers. Pullman is given 90 days in which to decide whether it will retain its manufacturing or its operating setup.

Plan for separating the businesses must be filed within a year. If it is not

acceptable to the court, that body prepare a proposal of its own.

• **Ruling on Directors**—The decree forbids interlocking directorates among (1) Pullman, Inc., the top holding corporation; (2) the Pullman Co., which furnishes personal service on cars; (3) Pullman-Standard Mfg. Co., Pullman Car & Mfg. Corp. of Alabama.

The Pullman comment on the decision notes that it is based on the conclusion that the company constitutes an illegal monopoly, but contends that if the principle is extended, a service innovation "that has been able to grow in general acceptance in its field by making for itself the tools best adapted for the trade" will not hereafter be able to develop economies in this way. It raises the question of whether "possession of the field" is or is not in the public interest.

• **Attack on Rates**—Charges made in original suit alleged that Pullman refused to operate lightweight railroad equipment purchased from other manufacturers, threatened to withdraw sleepers from railroads buying or operating sleeping cars made by others, charged unreasonable prices, exacted noncompetitive agreements from the roads. The company countered by asserting that it did operate railroad-owned cars that had not manufactured.

• **Budd May Benefit**—Directly interested in this angle of the case is Edward G. Budd Mfg. Co. of Philadelphia. Before the war Pullman-Standard built nearly 70% of all lightweight stainless steel, streamlined cars. Budd was the second largest builder and stands to profit greatly if its colossal rival

BOOKS UNDER FIRE

Target for a Federal Trade Commission broadside is the advertisement of "bullet-proof" Bibles and prayer books which many service men carry in breast pockets as armor protection. In citing the Arthur von Senden Co., a Pittsburgh jobber, for alleged misleading promotion, FTC asserts the steel-covered volumes would stop only spent bullets, and that even an uncovered book could handle these. In fact, says FTC, the light metal would splat a speeding bullet, thus causing a jagged wound. Answering the complaint, the firm cites newspaper accounts of lives that have been apparently saved by the little "armored" books, and the company also reports selling 400,000 of the estimated 3,000,000 volumes now with the services.

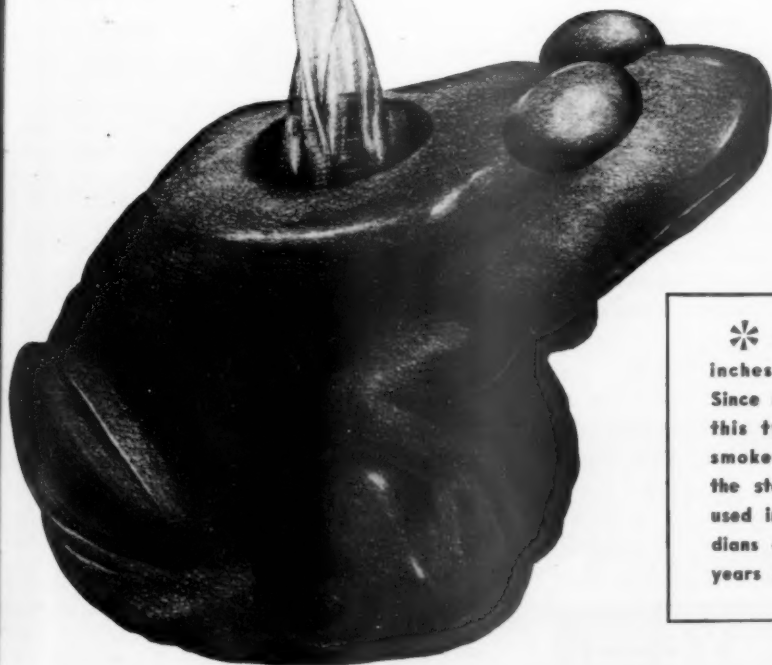


GULF SOUTH COMMERCIAL CONTRACT 1,000 A.D.*

Among prehistoric Indian tribes who inhabited the Gulf South centuries ago, trade agreements were often sealed with the smoking of a ceremonial pipe.

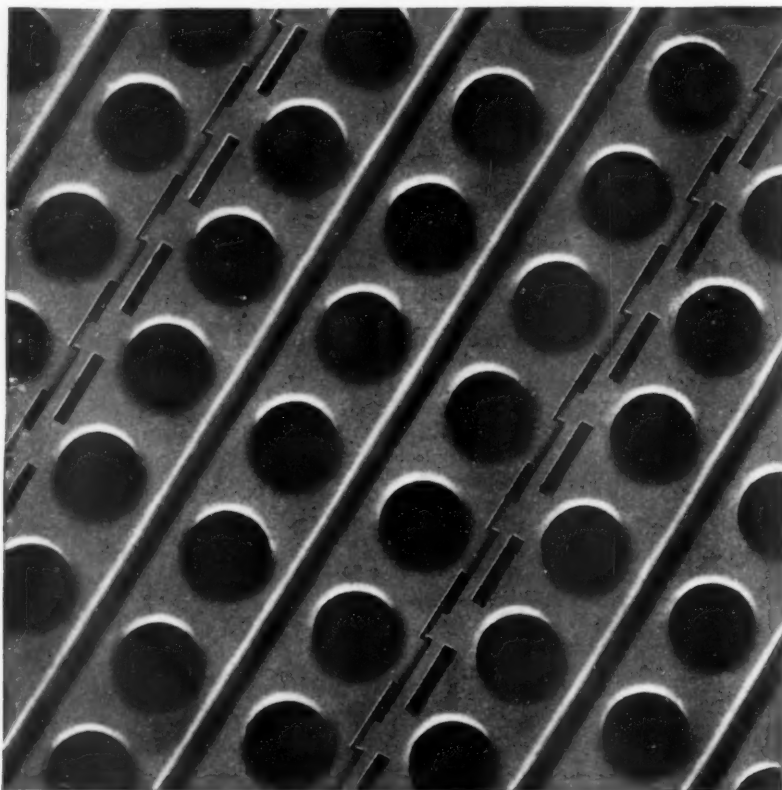
Such a ceremony belongs to a prehistoric era. Today, without such formality, Gulf South contracts are being fulfilled at a pace that is making new history. This region is meeting unprecedented demands for war materiel. Helping Gulf South industry are the area's wealth of rich resources—including natural gas and oil, minerals and fertile soil. With the productive might of its factories are combined the efforts of a determined people to help speed the day of Victory.

THE
Gulf South
ITS RESOURCES,
ITS MANPOWER, ITS PRODUCTION
ARE ALL DEDICATED TO VICTORY



* This frog effigy pipe stands 6½ inches high and weighs 6½ pounds. Since no stem has been found with this type of pipe it was probably smoked by inhaling directly through the stem opening. Effigy pipes were used in ceremonies by prehistoric Indians of the Gulf South 500 to 1,000 years ago.

UNITED GAS PIPE LINE COMPANY: A Natural Gas transmission company dedicated to serve wartime fuel requirements throughout the Gulf South.
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★ The reason? Development of original, start-to-finish engineering ideas that fabricated in mass quantity a bulky, heavy item that required many complex operations. Multiple-operation dies were designed to stamp and form steel sheets, thus combining several operations into one. And overhead hoists and cranes (many of them produced by R & M) were installed to speed handling through every manufacturing process.

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MOTORS · HOISTS · CRANES · MACHINE DRIVES · FANS · MOYNO PUMPS

cides to give up manufacturing. Pullman abandons sleeper operation and railroads might take over sleeper service on a cooperative basis.

One of the prewar charges leveled against Pullman was that it opposed the building of the new, light cars because that would make more obvious the obsolescence of its older sleepers.

● **Value Demonstrated**—Railroaders say that the best proof of Pullman's economic value is that every road which has tried operating its own sleepers has abandoned the idea. In normal times Pullman afforded the carriers an efficient sleeping car pool on which they could draw to meet seasonal or regional demands. Last year there were 7,100 cars in the Pullman pool. They handled 30% of the total passenger traffic, though they represented only 25% of the number of cars.

● **Troop Service**—These cars provided more service to troop movements last year than the company rendered to both troop and civilian travel during any year of the World War. At the same time Pullman-Standard has been manufacturing essential railway equipment, and numerous armament items.

Television Future

Postwar pattern may be discerned from technical reports but hot debates continue over using new or old standards.

The battle over television's place in the postwar spectrum (BW—May 6, p. 90) continued to wax hot this week.

There was no closer agreement between those who favor television of prewar standards and those who want it established on the new standards made possible by electronic developments.

● **A Pattern Evolves**—The Columbia Broadcasting System and James L. Fly, Federal Communications Commission chairman, still held for the latter; the rest of the industry for the former. A statement by Niles Trammel, National Broadcasting Co. president, only emphasized the stand of those who want television immediately after the war and that means on prewar standards.

But a pattern of probable outcome could be discerned in a report by the television panel of the Radio Technical Planning Board.

● **Recommendations**—This committee composed of engineers from all branches of the radio and television industry recommends that six megacycle channels in the lower frequencies—on a par with those in use before the war—be

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igned for commercial operation. It recommends that bands at least twenty megacycles wide be allocated in higher frequencies for experimentation on the television picture advocated by CBS.

Marketing Urge—Should the recommendations be approved by the RTPB, the board and finally by the FCC, Columbia could develop the high quality television service it seeks. And the rest of the industry could make sets immediately on the old standards.

Most companies are anxious to market receiving sets as soon as possible to defray the extremely high cost of television transmission before the advertiser begins to foot the bill.

Problem for CBS—Columbia has no manufacturing facilities; hence if it wants to prove that the high frequency system is superior and force adoption by the rest of the industry, it would have to tie up with a producer. For sets built on the old standards would not receive broadcasts on the new standards.

The Possibilities—Whether Columbia can persuade a manufacturer to take the financial risk involved here will be the question. Manufacturers may regard it as hazardous to launch a line of sets built to receive the programs of only one broadcaster.

The time element may prove crucial. As CBS alleges, the new system can be developed and made operative in one year, CBS would have a much better chance of bringing the industry around to its way of thinking. If the development takes longer, Columbia itself might have to fall in line.

Formula Trouble

Rise in cigarette smoking complicates problem of retaining old mixtures of imported Turkish and Greek tobaccos.

While the combination of war nerves and war prosperity continues to pile up a record demand for cigarettes, it also complicates the problem of importing enough Turkish tobacco to sustain the elaborate mixtures employed by the big companies for their principal brands. Each company has a formula that it guards and advertises with equal zeal, hence each is concerned over forced alterations that might affect the tastes of its patrons.

Stocks Depleted—It is estimated that the proportion of Turkish and Greek in the leading brand cigarettes runs 2% to 15%. Greek supplies have been cut off entirely, stocks in this country have fallen sharply, and the difficulties



It's the hour for invasion! Giant motorized artillery pieces are lumbering off landing barges—rolling over strange roads and hills to blast a path for the advancing forces. Huge ammunition trucks keep pace with the guns. Both are safely controlled—or stopped *instantly*—by Warner Electric Brakes. Dependable in all kinds of weather, these electric brakes are demonstrating advantages of their positive braking under most grueling conditions. When Victory is won, the experience gained in war will be applied to electric brakes for scores of new peacetime uses. Then trains—and many other types of power equipment—will be *braked electrically*—and Warner Electric Brakes will be available for an ever widening range of new power braking applications.

WARNER ELECTRIC BRAKE MFG. CO.
Beloit, Wisconsin



CONTROLLED SPLIT-SECOND STOPPING POWER FOR ANY PURPOSE

of obtaining imports from Turkey have not disappeared with the reopening of the Mediterranean. Some brand formulas already have been changed (page 34).

In order not to disturb flavors, changes in formulas are made with infinitesimal reductions of the scarce type and the substitution of available types as nearly as possible like the original. It is evident that the alterations have had little effect on consumption. After dropping to 103,600,000,000 cigarettes in 1932, cigarette smoking has had a continuous and phenomenal rise. By 1941 the figure was 206,500,000,000 and last year it rose to 257,700,000,000.

• **Stocked Ahead**—The big companies saw what was coming and early in the war did their best to build up stocks of Turkish in this country. We imported 52,000,000 lb. of cigarette leaf in 1941, but by 1943 war difficulties had cut imports to a much smaller amount.

Effect of this decline plus skyrocketing demand is evident in inventories. Stocks of foreign cigarette leaf which hit a high of 118,528,000 lb. in 1940 had fallen by July of last year to 57,500,000 lb.

The wily Turk, playing the Axis against the Allies and company against company, is getting his piasters out of the tobacco squeeze. Tobacco that used to bring 35¢ a lb. is now selling for as much as \$2 a lb. The meticulous grading has gone overboard and standards have greatly deteriorated. This is due partly to the shortage of labor in Turkey and partly to the conviction that there is no sense in being too careful when you can sell everything at war prices anyhow.

• **Cheaper Packing**—The famous "basma pack" of the leaf is out for the time being. This involved the most meticulous grading and laying of leaf upon leaf. The looser and less expensive "tonga" system of packing is now used.

Formerly a large percentage of the

Turkish crop went to Germany. The decline in these shipments would look like a retreat chart registering the waning fortunes of the Axis. The Turks not only have cut off shipments of chrome to Germany (BW-Apr. 29 '44, p. 11) but also have cut down on exports of tobacco to this market. It is understood that this is due less to pressure by the Allies than to distrust of Germany's ability to pay.

• **A Devious Course**—During the early days of the war when Mussolini and Hitler dominated the Mediterranean Turkish leaf had to travel a devious course to get to American cigarette smokers. The British were not so deeply involved since they prefer the traditional Virginia tobacco which they get from the U. S.

In that period a shipment to America went as far eastward as it could on Turkish railroads, thence on narrow-gauge or camel back until it reached

The Tanana—Alaska's "Golden" Stream

Last week the ice broke up in the Tanana River, a Yukon tributary, and eleven chance-takers—an assortment of soldiers, war workers, and a prospector—divided up a pot of about \$125,000.

Betting on when the northern ice moves is big business in Alaska—and the Territory's best sales booster. Principal guessing sweepstakes is the Nenana lottery whose heart is a guarded shack (below) at Nenana, a tiny railroad village on the Tanana. Within is a chronometer attached by a slack wire to a wooden tripod on the ice. When the floe shifts 50 ft. downstream, the wire yanks the chronometer and sets the winning time. The pay-off is either for guessing "on the nose" or for coming close to the exact minute.

Recognizing a business stimulant when they spot one, big and little merchants throughout Alaska handle the distribution of tickets. The chances go for \$1 each; there's no profit involved, but the stores are jammed all spring.

But the game, dependent on perverse Dame Nature, is a long session of suspenseful waiting that plays havoc with ticketholders' nerves—and daily ice reports issued by Michael Cooney, sourdough pool manager, are no sedatives.

The ice doesn't move anything like 50 ft. overnight—or within weeks—after spring arrives. This year it went out at 2:08 p.m. on May 4. It has departed suddenly as early as April 21

or tantalized bettors until May 15. The latter date was in 1935; trees were well budded and the Tanana was all awash except one obstinate pinnacle supporting the tripod. The winner, a college professor, came close to apoplexy, it was reported.

Last spring 21 soldiers at Ladd Field took \$40,000 for picking the evening of April 28. They played a hunch; science in any form seems invariably to foster losers. One year some engineers did research, made ice measurements, and came up with a mathematical certainty. They lost \$1,000 each. That same year another bettor invoked astrology to put the finger on fortune, and bet \$1 a min-

ute for all of May 11. He lost \$1,440. The winner was Buster Anderson, a bus driver, who not only knocked over the pot of \$70,000 but also won a flock of smaller pools in Fairbanks.

Maintenance of the pool machinery is low, federal taxes high. To circumvent heavy tax payments the bettors usually form pools which not only increase their chances but reduce individual taxable winnings. Alaskans wouldn't be adverse to partaking of fatter pots, but because bets are unavailable, postal authorities make sure the northern fiesta of chance stays within the Territory's borders.



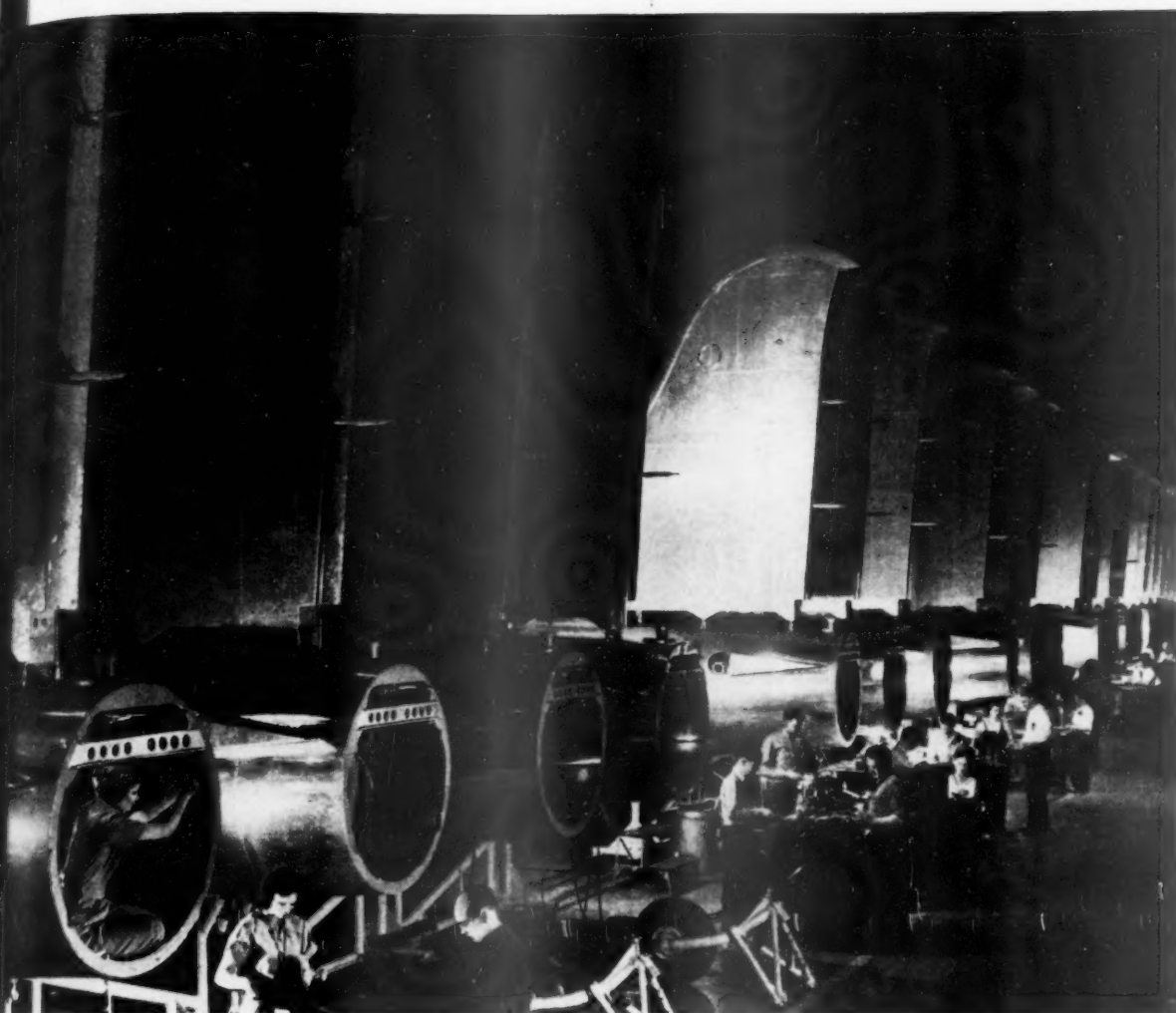
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Buy War Bonds — to Have and to Hold

Cutting the cost of victory

How much will victory cost? No one dares hazard a guess, but of this you can be sure — every day, every hour, every minute by which this war can be shortened will aid in reducing its cost by millions of dollars and thousands of lives.

Boeing is helping reduce the cost of war by producing more Flying Fortresses than was ever thought possible — bombers that are blasting the enemy out of his strongholds, sapping his will to fight. Boeing's total production of Flying Fortresses in 1943 was almost twice as great as in 1942.

Furthermore, on each of the four contracts since Pearl Harbor, the price quotation to the government has been substantially lowered. Yet the Boeing Flying Fortress is now a better airplane than ever — constantly improved to meet changing combat needs.

How has it been done? By the Boeing system of utilizing every man, every machine, every bit of space to the highest capacity; by introducing production shortcuts, advancements in tool design, and new manufacturing methods. For the year 1943, Boeing production ranked highest of all air-

craft builders in pounds of completed airplanes per square foot of floor area, and pounds of airplane per man-hour.

Boeing's complete engineering and production information has also been made available to the Douglas and Lockheed companies so that even more Boeing Flying Fortresses can be produced by these additional facilities.

When Victory is won, peacetime products will again have the benefit of Boeing skills in research, design, engineering and manufacturing. You can be certain of this . . . if it's "Built by Boeing" it's bound to be good.

other rail lines leading to the Persian Gulf. At Basra it was loaded whenever space was available in steamers that had discharged war supplies. Thence it made the long voyage around the southern tip of Africa and (if the U-boats missed it) reached the U. S. via the Atlantic. Some shipments still are arriving by this tedious route.

• **Domestic Turkish?**—The trade refuses to become excited over reports that the old Piedmont section of South Carolina is planning to raise Turkish tobacco.

The hitch is in the labor. Before South Carolina could impart to its Negro workers the special skills and techniques necessary in the raising, curing, grading, and packing of Turkish leaf, the war probably would be over.

Less Tobacco

Crops and stocks are low, but cigarette consumption is still on the rise—9% higher last year than in 1942.

The smoker's complaint that his preferred brand of cigarette isn't as good as it used to be is an old one, but with one company openly asserting in advertisements that some other brand formulas have been changed, the observations do focus attention on pertinent questions regarding tobacco stocks and the 1945 outlook.

• **Crops Off, Sales Up**—Last year's crop was down, Turkish is down (page 31), and two of the three principal types of cigarette tobacco—flue-cured and Maryland (but not burley)—fell below the five-year average of 1938-42. Meanwhile, consumption has hit new highs. These factors might indicate that some cigarette makers will have to use grades of leaf that they wouldn't otherwise blend, or—an unlikely course—cut down on their total output.

Cigarette consumption has long been rising. Last year it was 257 billion, an increase of 9% over 1942 for domestically consumed tax-paid cigarettes. These figures do not include the vast tax-free numbers sent to our armed forces overseas. Domestic smokers averaged 1,877 cigarettes last year, compared with 32 in 1900 and 363 in 1918.

• **Imports Are Improving**—Stocks of flue-cured tobacco held by manufacturers and dealers July 1 are expected to be about 1,244 million pounds, 135 million below a year ago.

Stocks of Turkish Jan. 1 were 61,386,000 lb., compared with 76,794,000 lb. the year before. Normally this foreign leaf would be used up in twelve months, but at present production rates,

it may not last that long. Imports, however, are a little freer.

Tobacco production comparisons show where current shortages lie (figures in pounds):

	1943	1938-42 Average
Flue-cured	791,000,000	835,770,000
Burley	390,000,000	358,055,000
Maryland	20,000,000	30,808,000

• **Record Crop Seen**—Some hope for the future is told by the March planting intentions report issued by the Dept. of Agriculture, which points to the second largest crop on record for 1944. The acreage increase for flue-cured will be 18%, burley 21%, and Maryland

15%, according to present indications. What the yield may be is problematic, but current estimates show:

	1944 Crop (Millions of lb.)	Carry- over (Millions of lb.)	Total (Millions of lb.)	Change From Previous Year
Flue-cured . .	946	1,244	2,190	+21
Burley	456	640	1,096	+25
Maryland . . .	30	31	61	-2

• **Prices Are Up**—High prices are chiefly responsible for the bigger planting. Flue-cured last year sold at an average of 40¢ a lb., burley for 45¢. Maryland for 56¢, compared with 1935-39 averages of 20¢, 22¢, and 20¢, respectively.



SHUT-IN WAR WORKERS

The halt, the lame, and the blind are filling vital jobs in war production (BW—Feb. 20 '43, p. 92), and even shut-ins are doing their share. At Seattle, Wash., for example, Boeing Aircraft employs more than 50 "unemployables" to work at home salvaging screws and bolts swept from plant floors. Typical are Mrs. Ida Crawford

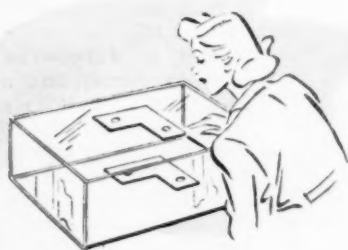


(left), who sorts 120 lb. of these weekly from her wheel chair, and J. M. McDonald (right) whose arthritis doesn't prevent his using a magnifying glass to cull stripped bolts. Boeing also has a salvage shop at the Goodwill Industries shelter where oldsters and handicapped guests work (below). Work-weeks on the shut-in circuit range to 30 hours, depending on the individual's health.



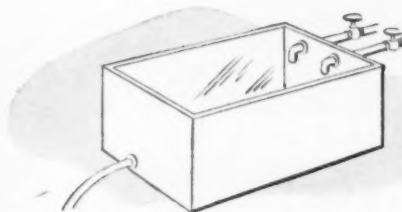


A few tips that may help you
end production problems
... with *Glass*



SPEED INSPECTION—WITH MIRRORS

When both top and bottom sides of a manufactured part must pass visual inspection, save time with this plate glass and mirror combination. Parts are laid on the plate glass top—and the under side is readily viewed in the mirror several inches below.



LONGER LIFE FOR TANKS

If foods and chemicals are causing speedy corrosion of tanks, line them with glass. Glass is one of the most chemically inert materials known. It won't rot or rust. It won't absorb odors or liquids. And it cleans to a sparkling finish—every time.



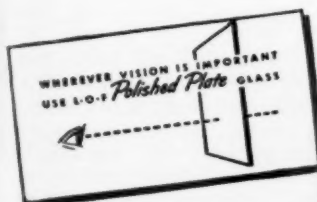
PREVENT STICKING OF DRIED MATERIALS

In food de-hydration, as well as in many other processes, materials tend to stick to the tray or shelf on which they are dried. Glass has been found an effective answer to this problem, because its ultra-smooth surface tends to reduce adhesion.

Industry has found many new uses for glass in recent years. Perhaps glass can perform a useful function in your business.

- One of the hardest and smoothest surfaces known
- A surface that requires no further finishing
- Dimensional stability
- Electrical resistance
- Non-porosity
- Resistance to abrasion and corrosion
- High tensile strength

Glass comes in many forms. Flat, curved, laminated. Transparent, translucent or opaque. Colorful or colorless. For information on its many properties—or its many types—get in touch with us. We may be able to help you find a sound, practical solution to your production problems. Libbey-Owens-Ford Glass Company, 5554 Nicholas Bldg., Toledo 3, O.



LIBBEY • OWENS • FORD
a Great Name in **GLASS**

MEETING THE "UNPREDICTABLE"

WHY DROP FORGINGS ARE A WAR TIME MUST

When the ability of a metal part to stand up under battle strain is being calculated, the war time designer must allow for "unpredictable" stresses and strains. That is why the demand for drop forgings in this war has risen to heights heretofore undreamed of. Drop forgings have the extra strength combined with light weight that makes all the difference between success and failure in the performance of airplane, tank, gun, or other mechanized piece of battle equipment.



Chambersburg Hammers are contributing heavily to the veritable torrent of drop forged parts that are going into the mechanized forces of the Allies pressing forward on every battle front. These Hammers will be contributing as heavily in the days of Peace that are ahead—if the lesson taught by war is remembered... the lesson that there can be no substitute for the strength, toughness and light weight imparted to metals by impact die-forging.



CHAMBERSBURG ENGINEERING CO.

CHAMBERSBURG, PENNSYLVANIA

Foundry Jam

Labor shortage plagues the industry, but NWLB contends that authorized wage increase exceed Little Steel formula.

Foundrymen were not displeased when WPB Chairman Donald Nelson called their industry the No. 1 bottleneck in both war and essential civilian production (BW—Apr. 29 '44, p. 8). They thought it was about time Washington learned the unpleasant facts of the wartime life.

• **Short of Labor**—The only reason foundries cannot turn out more castings—steel, gray iron, malleable, and nonferrous—than this country would know what to do with is that they cannot get the labor. Other industries have manpower shortage troubles, but the foundrymen think they have the prize headache. They have no exact figures on what has happened to their output, but horseback surveys of the ferrous foundries indicate it stands at around 60% of capacity, and manpower is the sole handicap.

The Gray Iron Founders Society, checking manpower in its industry, recently found that 1,669 plants answering their inquiry normally employ 161,828 men and 2,878 women. Now they employ 135,602 men and 6,214 women. A fortunate 605 foundries required no additional workers. But 1,064 short-handed units needed 21,031 men and 834 women. Another 28 foundries on the mailing list replied that they are not operating.

• **Jobs Are Heavy**—Women are not the answer to shortage of foundry labor. Heavy lifting jobs are frequent, and many states make these jobs illegal for women. Women do a number of foundry jobs adequately, including light coremaking, lift-truck operating, cleanup work, grinding, and chipping.

Apparently few women patternmakers or molders have been developed. Women are doing this job in some nonferrous foundries. The shortage of molders is especially acute, and foundry operators find ways, such as generous upgrading and liberal overtime work, to boost the take-home wage of experienced molders to \$5,000 or more a year.

• **No Help From NWLB**—A basic difficulty is that foundry wage levels are lower than wages for easier, pleasanter jobs in other war industries, and the National War Labor Board has been uninclined to ease off for this industry as a special case. Chicago gray iron foundries recently



Of All People...!

Generals are the last people in the world you'd expect to bend. Even a little.

A few years back, if you'd dared ruffle the dignity of an old-school general with, "I'll be seeing you in the funnies!" Well, folks would have said you belonged in that little house on the hill.

But today that remark isn't as silly as it might sound. Dignity-for-dignity's-sake has given way to the true dignity of results... and startled but grateful generals are saluting the comics for truly remarkable results in the war effort. Comics are proven powerful morale builders. "Tillie the Toiler" has helped swell WAC enlistments. No less personable than "Donald Duck" has aided the august U.S. Treasury explain and collect taxes.

So consider this if you have ever been tempted to skip Puck-The Comic Weekly as an advertising medium for your product, because of a fancied lack of "dignity." In Puck-The Comic Weekly your advertisements associate with characters proven in achievement and popularity... "Tillie the Toiler"... "Donald Duck"... the lovable "Skipper"... "Blondie and Dagwood"... and the rest, America's favorites ready to add a real punch to *your* advertising.

Puck produces results. The Bendix Aviation Corporation had an educational advertising job to do—to tell millions of people about the forward strides in aviation made pos-

sible by their many instruments and other types of equipment for planes. During July, 1943, they began advertising in Puck-The Comic Weekly, explaining their precision products through a created character, Captain Ben Dix.

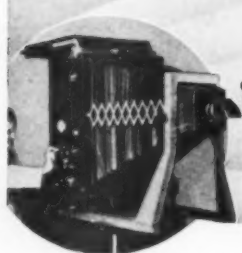
Readership surveys, responses, commendations from high ranking military officers and letters from leaders of the aviation industry prove this advertising in Puck to be phenomenally successful. In helping the Army Air Forces to recruit youths 17 years of age for the Air Corps Enlisted Reserve, Captain Ben Dix advertisements in Puck included a brief explanation of the AAF's program and a coupon through which complete information could be requested. Each Bendix advertisement brought in more than 1,000 requests from 17-year-olds numbering about 1,250,000 in the entire United States. Today Captain Ben Dix advertisements continue to appear regularly in every other issue of Puck.

Men and women, as well as youths, read the comics. Puck-The Comic Weekly reaches 20,000,000 people in over 6,000,000 homes from coast to coast through 15 great Sunday newspapers.

To learn more about the power of Puck, write or telephone to see and hear Puck's sales analysis presentation, "Your Customers of Tomorrow": Puck-The Comic Weekly, 959 Eighth Avenue, New York, or Hearst Building, Chicago.

SAVE TIME...MONEY MANPOWER!

Use Rectigraph
Photocopies



PLANS
PAYROLLS
SPECIFICATIONS
CHARTS
CONTRACTS

Use of the Rectigraph Photo-Copying Machine to make exact, error-proof copies of anything written, printed or drawn in actual, reduced or enlarged size, and in any quantity is business photography at its best. Save money and manpower. Error-proof, no checking is required. Rectigraph Photocopies help coordinate and expedite production in hundreds of plants. Speedy, easy to install; requires no darkroom. Write for complete facts today.

THE HALOID CO., 209 Haloid St., Rochester 3, N. Y.



Speed Sweep WITH A BACK OF STEEL



Makes Light Work Out of Tough Sweeping Jobs

Steel back of Speed Sweep brushes is the basis of unique construction for faster, easier, better sweeping. Block is $\frac{1}{2}$ usual size—easier to handle. Tufts of longer, better fibres are more compact—provide "spring and snap" action. Handle instantly adjustable to height of sweeper—reduces fatigue and strain. Speed Sweep brushes are built to outlast ordinary brushes 3 to 1.

FULLY GUARANTEED

Since Pearl Harbor Speed Sweep brushes have proved their superiority in many thousands of factories under varied conditions. They are unconditionally guaranteed to meet your requirements. Prompt shipment on AA-5 or higher priority rating. Write for styles, sizes, and prices today.



were hit by strike for several days. The strike was aimed at NWLB's refusal to give the men more money because they had already exceeded the Little Steel formula.

• **Owners Work at Trade**—Anecdotes of wartime labor shortage are as frequent in foundries as in laundries, and as bizarre. Many a foundry owner who learned the molder's trade is working at it today and letting his secretary run the office.

One of the most essential gray iron shops in the country one morning lacked operators for the six cranes normally required to keep work flowing. The vice-president in charge of production climbed into one crane cab, the plant electrician took another, and the two kept the shop operating all day full tilt without loss of output.

• **Hurt by Draft**—When Selective Service snapped up the men under 26, foundries were hard hit. Many a foundry job requires more spring in the back than older men have. The 4-F's in general can't take it. Loss of the youngsters cut many foundries' output by an estimated 25%.

W. L. Seelbach of Forest City Foundries Co., Cleveland, told the American Foundrymen's Assn. annual meeting in Buffalo last month that the industry could use 15,000 Mexicans. But nobody—least of all the Mexican government—thinks that any such number of strong backs will be forthcoming from below the Rio Grande.

• **Recruits Drift Away**—One hurdle is that housing for Mexicans is hard to get, and the most critical shortage of foundry labor is in the most critical housing regions. Foundries in the Cleveland area recruited labor in the South with fairly satisfactory results, but many of these workers have already drifted away to less wearing jobs.

WPB estimates critical labor requirements of the hot-metal ferrous groups as 3,400 for drop forging, 7,100 for steel casting, 3,800 for malleable iron casting, 3,700 for gray iron casting.

• **Two New Foundries**—It is generally agreed that the U. S. has more foundry capacity than even war requires. But because of the acute labor shortage, two large malleable foundries are being constructed in areas where labor is available. Principal objective is to get more castings for landing craft and motor trucks. One is to be operated by the Lake City Malleable Co. in Ashtabula, Ohio, and the other by General Motors in Danville, Ill.

In the earlier stages of war production, the Army and Navy were inclined to specify steel in many places where experience has since shown malleable would suffice. Prize example of mal-

ANOTHER COOPERATIVE

Engineer Hugo Stainbrook of North American Aviation in Inglewood, Calif., and worker associates are forming a corporation of their own. Articles of incorporation of the 100% employee-owned Los Angeles Plastics Corp., with Stainbrook as president, have just been approved and the company will become active the moment California corporation commissioners accept the tentative budget.

Cooperative war baby though Los Angeles Plastics Corp. is, it is designed as a postwar project. Its plan contemplates securing premises and entering into war contracting and subcontracting business immediately.

With Stainbrook in the venture are 2,000 fellow employees who have signed agreements to take one share of stock each at \$100. According to the company constitution, these first shares will be limited on the basis of one share to every worker and one vote to every shareholder.

Engineer Stainbrook is 28 and subject to draft, but he is determined that the worker-owned company shall persevere with or without him. In elaborate detail, managerial provisions have been made for the owner-operators to elect a new president and to face other business contingencies.

leable use: The four-wheel-drive armored scout car and the half-ton use malleable castings to a total 763 lb. per car.

Malleable castings are also urgently needed for farm machinery. Not long ago, lack of a twelve-ounce malleable casting was delaying completion of a major manufacturer's entire spring schedule of planters.

• **Automotive Castings**—The only serious shortage of gray iron casting according to WPB, is in the automotive class. Buick announced last week that it has reopened its big gray iron foundry. By increasing mechanization and better scheduling, WPB hopes to have the gray iron shortage licked by midsummer.

What every foundryman knows and hates to have mentioned above whisper, is that foundry working conditions even at best are less than completely pleasant. Great emphasis being placed on dust arresters, ventilating equipment, and mechanical handling. But no foundry work is a pretty tea.

RATIVE Radio Fills Gap

Short-wave equipment is used by railway after storm cuts wires. FCC orders inquiry into use of radio on trains.

While the Federal Communications Commission was announcing last week its investigation and public hearings on the feasibility of using radio in train operations, one railway staged a demonstration of frequency modulation short-wave equipment in an actual operating emergency.

Storm Cut Wires—Other railroads have been making tests of the practicality of using radio in the control of moving trains, but the tests have been made under normal operating conditions (ENR—Apr. 29 '44, p. 66).

Last week's test under emergency conditions took place when the Chicago, Rock Island & Pacific railway's communication lines were broken between Colby and Selden, Kan., by a heavy snow storm which tore down wires and poles along 34 mi. of track.

For Emergencies—According to E. A. Dahl, electronics engineer of the Rock Island, the railway recently purchased standard frequency modulation short-wave operating equipment for two-way voice transmission from Motorola Co. of Chicago.

Dahl modified the equipment into standard frequency two-way radio sets for railroad use to be kept in Chicago and rushed anywhere on the system where wire transmission broke down.

Gap Was Bridged—When the snow storm halted communications last week, the radio equipment was tied into the gap in the wires in such a way that voice orders, train signals, and information were carried over the break in very much the same manner that radio stations make a wired program and broadcast it to bridge a gap. Dispatchers 100 miles apart talked over 70 miles of wires, and 30 miles of wireless gap bridged by radio, just as if talking over wires the entire distance. Two frequencies were used so conversation could be carried on normally.

Applications Pending—No date for a public hearing by FCC has been set. The Interstate Commerce Commission has been invited to cooperate in the inquiry and to name a committee from its membership to preside with FCC commissioners at the hearings.

FCC has authorized construction permits for nine experimental radio stations to be used on the Baltimore & Ohio Railroad between Baltimore and Pittsburgh, and on the Chicago, Bur-



Power Men call it **PAY DIRT**

► If engines and compressors could digest dirt, power plant men would show even lower costs than they do.

As it is, part of the cost of repairs and parts, of fuel and oil, and of gradually lessening efficiency, must be charged directly to air that carries abrasives and other impurities into the engine.

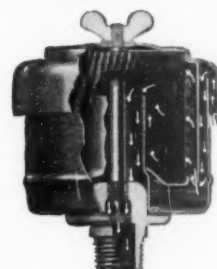
When intake air is thoroughly and continuously cleaned, engine and compressor life is prolonged, maintenance costs go down, and efficiency stays up.

Looked at it this way, the dirt that filters keep out of machines is *pay dirt*.

Air-Maze oil bath filters feature *triple* filtering action—centrifugal, oil washing, and viscous impingement—to trap abrasive dirt and insure long, efficient machine operation.

Built to last, Air-Maze air filters are among that small group of accessories that actually pay for themselves.

★ EFFICIENCY STAYS UP!



AIR-MAZE OIL BATH FILTER

Explanation:—Incoming air is first reversed, depositing heavier particles in oil. It is then scrubbed by oil, and passes through viscous impingement filter. Oil carried by air stream continuously washes filter element and renews adhesive film.

Send now for your copy of the new Air-Maze general catalog, AGC-144.

AIR-MAZE CORPORATION • CLEVELAND 5, OHIO

Engineers and Manufacturers

Representatives in Principal Cities • In Canada: Williams & Wilson, Ltd., Montreal, Toronto, Quebec, Windsor



lington & Quincy, between Chicago and Denver and into Montana.

Applications for 22 experimental radio stations for use in railroad operations have been filed, FCC disclosed. The applications cover two-way radio communication between the dispatcher and trains in motion, between trains, and between the locomotive and caboose of each train. Also considered is the use of "walkie-talkie" radio equipment for flagmen and brakemen.

Row in Power

States urge amendment of law to shake FPC's grip on borderline utilities whose output of energy slops over.

The states' rights quarrel between state utility regulatory commissions and the Federal Power Commission flared up again last week when the National Assn. of Railroad & Utilities Commissioners, representing virtually all state commissions, finally obtained sponsors for its proposed amendments to the federal power act which were voted last fall at a convention of the association.

• **Across State Lines**—Under bipartisan sponsorship in each house, the association laid before Congress amendments which would write off the books the Jersey Central Power & Light decision, in which the Supreme Court last year upheld an FPC order holding that Jersey Central is under federal jurisdiction because it sells power to the Public Service Electric & Gas Co. of New Jersey, which had an interchange contract with Staten Island Edison Corp. in New York.

Jersey Central energy, the court agreed, might "slop over" into the New York system.

State commissioners—although not those of New Jersey—protested that the ruling made absolute an FPC invasion of state jurisdiction and, after a bitter convention fight here, got a favoring amendment of the federal power act.

• **New Definition**—The proposed amendments would redefine the term "public utility" as used in the act by junking the present basis of "ownership and operation" of facilities used in interstate commerce for a basis of "sale or transmission" for compensation of energy in interstate commerce.

The amendments would provide that energy shall not be considered sold at wholesale or transmitted for compensation in interstate commerce when it flows between systems because of "slop over" or in pursuance of (1) contracts for emergency service or (2) contracts

providing that net energy balances from energy interchange shall be paid for on the basis of production or purchase cost.

• **Subterfuge Charged**—FPC's supporters flew to the attack with charges that the amendments might void all the court decisions of the past nine years which have been handed down on the basis of "ownership or operation" of interstate facilities. They see the door opened for organization of "state line transmission companies" which would own only the lines actually crossing state borders, but which would thus rid of federal jurisdiction the generating and receiving companies at either end.

The gloves came off with the charge by FPC's friends that utility companies forced the association into proposing the legislation through pressure on state commissions. It was pointed out that once free from federal jurisdiction, as they might well be under the amendments, the companies would be free of FPC's insistence on original cost studies under which excesses over original cost are ordered eliminated from accounts and from the rate base on which a company's allowable percentage return may be earned.



ALEWIVES COME BACK

New England fisheries are preparing for the biggest canned pack of alewives ever; but the catch itself will be a mere fraction of the 12,116,638 lb. taken 58 years ago. Fishermen expect to produce in 1944 about 4,000,000 lb. of the blue-backed herring, which are dipped from river traps (above) during the spawning runs this month and next. Alewife canning is relatively new—rising from 24,000 cases in 1940 to 100,000 in 1943. In

Broader Policy

Fire insurance group sponsor more liberal coverage for residential risks without increase in premium cost.

A more liberal, broader, and simpler fire insurance policy covering residential risks, without increase in premium has been devised by the Insurance Exchanges Assn. It will be put in effect according to the association, when various rating bureaus and state regulatory bodies approve its use. The association represents most of the nation's largest stock fire insurance companies.

• **Terms Outlined**—The proposed policy provides that:

- (1) A policyholder would have the option of applying 10% of his fire insurance to household goods to cover any property burned "off the premises." This, for example, could cover articles of clothing sent out for laundering or cleaning, or luggage and clothing destroyed in a hotel fire.
- (2) Up to 10% of dwelling insurance

the spring of 1782, colonists of what now Warren, Maine, warded off starvation by dipping the herring from the river. In modern times, alewife served in another crisis when, at \$3 each (retail), the smoked fish helped many a depression-hit family with its food problem. Until discovery a few years ago that canning softens the alewife's needle-like bones, this type of herring was almost passe. But in cans, it's staging a comeback—spurred by wartime food shortages and the ease with which it can be caught.

Will your products be on the Salesfloors of the better Dealers tomorrow?

What will your future I.P. be?

This is the Fifth of a series of advertisements presenting "Industrial Par" and its importance to your company in all future planning. Save this and succeeding I.P. advertisements as the basis for discussion and as a guide to your planning program.



Your Company's I.P. May Be The Deciding Factor



THE return to peacetime production won't be accomplished without industrial "casualties"—every realistic business thinker knows that some mortality is inevitable in such adjustment.

Farsighted planning now will enable many companies to carry on and through — they will re-establish and hold places for their products on

sales floors of the better dealers tomorrow.

Such planning recognizes that there will be many problems beyond the control of management — to be met as they arise with immediate resourcefulness. Well-conceived, thorough postwar plans of action concern themselves properly with the known factors—the anticipated trends of the peacetime future.

It is a certainty that even well-known, long established industrial firms will encounter new competition — new, aggressive organizations, unfettered by any traditional methods of manufacturing and marketing, who are determined to challenge the places which older, prewar companies believe they hold in the industrial world.

And it is another certainty that buyers in the postwar world won't differ materially in their usual habits — they will want values for their dollars, not mediocre products at de luxe prices. Those manufacturers, whether entrenched or newcomers in a given market, who are best equipped to provide better products at attractive prices can expect to fare best in the coming battle of competitive production. To make better products—at lower cost—will demand production-engineering skill implemented with the best modern machine tools.

Such production has its roots in man-hour output. Only by maintaining or excelling our expected national industrial par can we attain security of jobs and wages for the greatest number of workers. The vital significance of industrial par to industry is summarized in the panel headed "Spotlight Facts for Your Future I.P. Planning."

In the new competition — postwar — the farsighted manufacturer will look to the most modern and advanced machine tools as the most effective means of maintaining industrial par and its benefits in terms of employment — better production at lower cost.

Spotlight facts for your future I.P. planning



- * Production methods — developed in wartime — increase man-hour output; pent-up buying power — released in peacetime — demands increased production.
- * The rate of 2½% increase per year output per man-hour, established by a 12 year record of industrial production, can be expected to reach at least 4% per year — compounded.
- * Manufacturers must set a goal of 50% increased output per man-hour every 10 years — to maintain a high level of national prosperity and achieve its benefits in terms of security of jobs and wages for the greatest number of workers and the volume production of more goods for more people at lowest cost.
- * Machine tools — the most modern, most efficient — are recognized as the most effective implements of mass production and increased output at lowest cost — but only continual replacements with the newest and finest machine tools assures full productive capacity. Such replacements yearly should be equal to 10% of the total machine tool investment — in keeping with increased output.
- * The cost of machine tools is insignificant in terms of their productive power . . . from 1927 to 1937, according to census reports, American manufacturers had only a total of about 2% invested yearly in machine tools in ratio to a total volume of 9 billion dollars' worth of production annually.

†† Industrial Par — the constantly increasing output per man-hour equal to approximately 50% every 10 years.

KEARNEY & TRECKER CORPORATION

MILWAUKEE 14

WISCONSIN



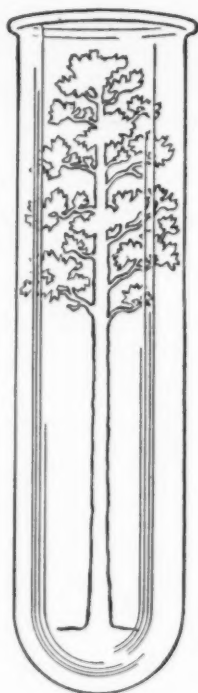
Let's all Back the Attack! BUY MORE BONDS

Milwaukee Machine Tools

WOOD PLASTICS

PLASTICIZERS AND CHEMICALS

A REPORT ON NORTH CAROLINA'S RESOURCES



FROM the tidewater swamps of the Atlantic to the towering ridges of the Great Smoky Mountains, there stretches a huge forest: the State of North Carolina, offering rich raw materials to the PLASTIC INDUSTRY.

Centuries ago this forest attracted the first white settlers. Their descendants cleared some 40 per cent of the land for crops and industrial settlements and drew on the tree substance to build up, among other forest industries, one of the world's finest and largest furniture centers.

Pine, hemlock, cypress, cedar, oak, ash, hickory, maple, beech, gum, chestnut, poplar, elm, basswood and walnut are found in commercial quantities.

North Carolina's tremendous forest reserves, plus annual natural growth of more than 10,000,000 cords of sound wood, plus cheap hydro-electric power, together with geographic location favorable to the largest Eastern markets, offer a golden opportunity to the manufacturer who would see his plywood, fiber wall-board and other PLASTIC products in the homes and offices of the World of Tomorrow.

There is room for a
Dissolving Pulp Plants:

acetate and nitrating pulps for *High Grade Plastics and Textiles* . . . North Carolina's furniture industry provides one of the nation's largest markets for nitro-cellulose lacquers and other pulp derived finishes.

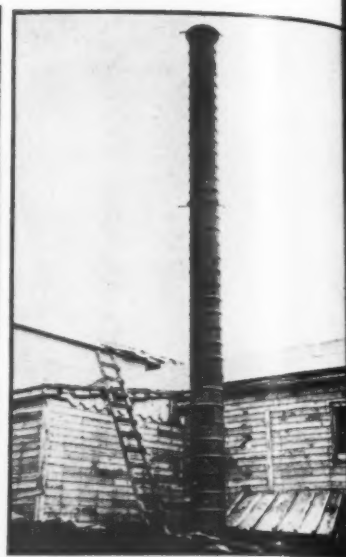
An annual sawdust pile of more than 500,000 tons will provide the raw material, at waste product prices, for turning out phenol-formaldehyde, wood flour and lignin for plasticizers . . . the miracle of chemical decomposition

can be put to work to produce wood sugar for feeding yeast and wood alcohol.

Industry seeking the right location for establishment of a *Destructive Distillation Plant* for the manufacture of methanol and acetic acid and wood tar derivatives will find it here where raw materials are abundant.

Write today for information about North Carolina resources: mica, clay, asbestos, silica, soya bean and coal, as well as forest. Address Commerce and Industry Division, 3183 Department Conservation and Development, Raleigh, North Carolina.

NORTH CAROLINA



STACK OF DRUMS

Given some old fuel drums and a few tools, Navy Seabee crews can make anything from a culvert or armor roof (BW—May 8'43, p17) to a smoke stack. Latest evidence of this is the tall stack they built at an Aleutian naval base by welding together twelve of the empty containers. The 40-ft job helps keep steam up to heat a medical unit's dispensary.

could be applied to cover the loss of garage, or other outbuilding.

(3) Up to 10% of his insurance could be collected by a policyholder temporarily burned out to offset rent paid for new living quarters.

(4) Under household goods policies, renters could also collect up to 10% of the policy for any fire damage done to improvements or alterations to leased premises they had already paid for.

(5) No fire loss of up to \$250 would reduce the policy's face value, which would be automatically reinstated after payment of losses not exceeding that figure. Currently the amount varies in different sections of the country and averages around \$100.

The fire companies have also adopted a uniform and broadened form of "extended coverage," and thus far the new liberalized policy form has been approved by representative insurance groups.

• **Wordage Is Cut**—The new form, with its few inches of legible type, will replace some 400 other varied forms now in use and, it is estimated, will also affect favorably present policies calling for the payment of over \$300,000,000 a year in premium payments, or seven out of every ten policies issued by stock fire insurance companies now in force.

Textiles Tighten

Declining inventories force stricter control to stimulate the production of low-priced items. More sought for civilians.

Gradual tightening of controls on civilian textile production, particularly cottons, can be expected over the next few months.

Controls are being forced by the rapid exhaustion of inventories. These are expected to hold up through the summer, but by late fall they will be dangerously low. Officials are determined to force heavier production of essential, low-priced items—work clothing, infants' and children's wear, cotton house dresses, men's shirts, shorts, pajamas—that there will be enough of these to enable civilians to squeak by without clothes rationing.

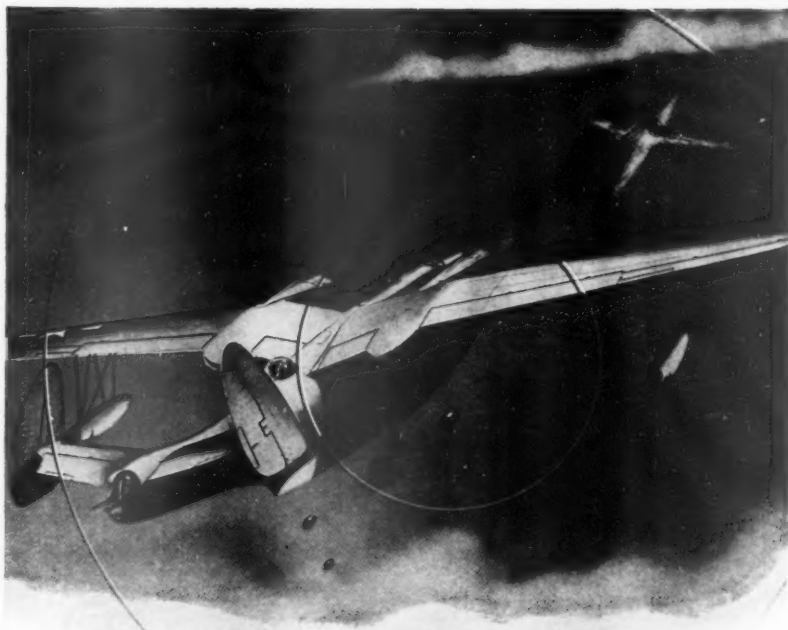
Several Techniques—A variety of techniques will be used. High-priority ratings, restriction of certain basic fabrics to particular end uses, and dollar-and-cents ceiling prices to prevent upbidding are being considered. Probably all will be used in some degree. Even standardization is back in the picture (in a watered version) as a means of assuring quality control.

An idea of the rate at which inventories are being gobbled up can be had from these figures:

WPB's Office of Civilian Requirements received an allotment of 2,498,000,000 yards of cotton gray goods for the first six months of this year (this is what was left over for civilians after the Army, Navy, lend-lease, etc., had taken their share). This allotment compares with OCR's estimated minimum requirements of 3,163,000,000 yards, and with a production for civilians of 3,564,000,000 yards in the first six months of 1939. Consumption is running at an estimated rate of 4,000,000,000 yards.

Less Than Half—When it comes to the staples deemed most essential—cotton print cloth, yarn fabrics, fine sheeting, combed broadcloths, and work clothing—the picture is even worse. OCR's share of the production of these is figured at less than half of current civilian consumption.

The plight of one big distributor of girls' dresses illustrates the extent to which the inventory pipeline is emptying. This company usually has, at the end of March, about 3,000,000 yards of cotton cloth beyond its needs for spring production. This year, the company not only did not have this reserve, but also was 1,000,000 yards short of having



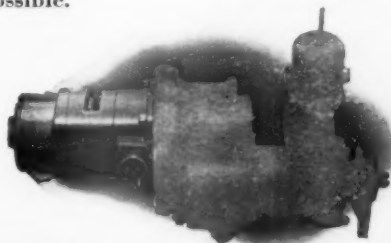
P. B. M. Mariner

TAKING THE *'SLAM'* OUT OF BOMB BAY DOORS...

Bomb bay doors must open quickly and smoothly without jarring... and close without slamming. Holtzer-Cabot designed a special gear motor to meet these performance requirements which is, today, helping bombardiers blast the enemy.

Many other Holtzer-Cabot special fractional HP motors are providing power for war products so that victory will come sooner.

Our motor development engineers, backed by over 50 years of experience in electric motor design, will discuss your post-war motor problems with you. However, war needs come first and our manufacturing facilities, today, must be strictly limited to building special motors for winning the war as quickly as possible.



SPECIAL MOTORS DESIGNED TO FIT THE APPLICATION

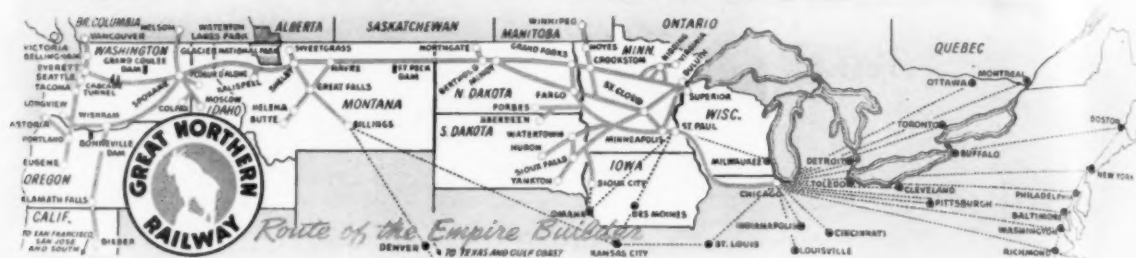
THE HOLTZER-CABOT ELECTRIC CO.

Designers and Builders of Special Fractional HP Motors and Electrical Apparatus

125 Amory St., Boston 19, Mass.; Chicago, Illinois; New York, N.Y.; Philadelphia, Pa.

GREAT NORTHERN RAILWAY

BETWEEN GREAT LAKES AND PACIFIC



G. N. IRON HORSES GET CONSTANT GROOMING FOR TOP PERFORMANCES

Proper Maintenance Assures Physical Fitness—Keystone of Dependable Service

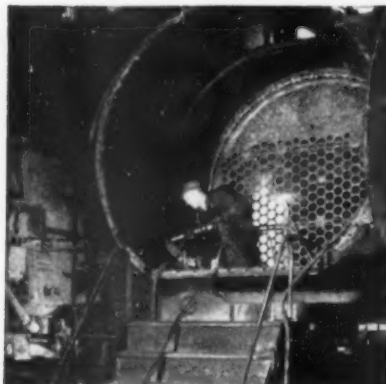
Great Northern locomotive shops and roundhouses aren't very glamorous places. They don't make pretty pictures. The men and women who work in them know the smell of smoke, the feel of grease, the heat of welding torches, the incessant rumble of machinery.

They know, too, the necessity for the constant inspecting, servicing, repairing and overhauling of the big iron horses which pull Great Northern trains.

Maintenance of a gigantic locomotive fleet entails difficulties in peacetime; but, stir in a war, mix with serious manpower* and material shortages, and the task becomes enormous and seemingly insurmountable. The railway is licking that job with knowledge, determination and resourcefulness.

Great Northern never has compromised on providing adequate, reliable

**On April 1 there were more than 5,900 G. N. employees in the Armed Forces*



The front of a locomotive boiler is known as the "smoke box."

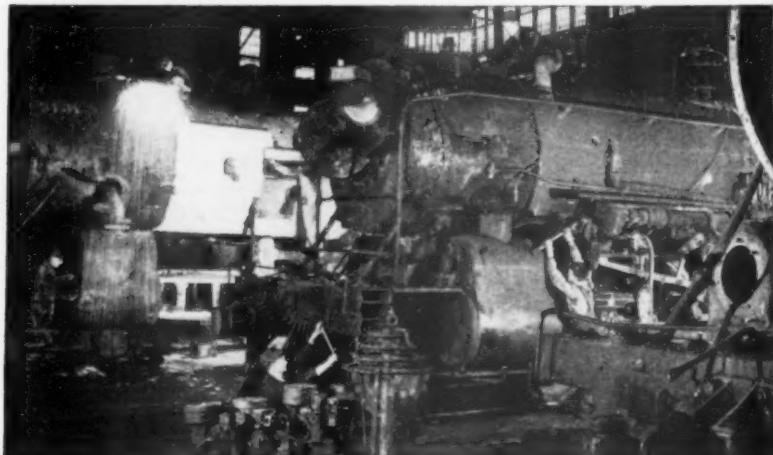
motive power. Traditionally, the railway always has insisted on peak locomotive performance—the keystone of dependable service.

That tradition is one of the many things which make Great Northern great.

Polishing the headlight is a natural job for women workers.



The mechanism which provides even distribution of steam in a locomotive is a multiple valve throttle and superheater header. It weighs 1½ tons.



Tired iron horses undergoing repairs in one of G. N.'s several large locomotive shops, strategically located along the 8,000-mile system.

enough material to fill its spring orders. **Shortages Studied**—A committee made up of two persons each from WPB's Textile Division, OCR, and OPA is making a continuing study of textile shortages. The committee has made its preliminary recommendations, and these are expected to form the basis for future action by top officials. They boil down to a program like this:

(1) OCR will receive film allocations of certain gray goods' constructions. Allocations of the most essential types will come first, less essential later. Mills will be required to set aside specified amounts of these materials for OCR, and production for civilians will be given a priority rating topped only by military and essential industrial users (excesses will get a lower rating). Usage of these allocations will be controlled, checked, and accounted for by WPB's Textile Division.

(2) Type and cost of finishing of these controlled gray goods will be strictly limited by OPA and WPB. OPA's MPR 127 (finished piece goods) will be tightened.

(3) Sales of constructions in this controlled group will be limited to a list of essential uses (including piece goods for sale across retail counters), which will carry a high rating. Sales to users without ratings will be prohibited.

(4) In addition to these controls, the most essential items in low and popular price ranges will be controlled qualitywise through production directives to cutters.

(5) Certain superessential programs will give all these controls, plus minimum-quality standards (Washington calls them "specifications" now) and dollar-and-cents ceiling prices.

Prices Skipped—The committee's report skipped lightly over the question of price, but it looks as though OPA will be forced to give some ground here. WPB and OCR officials regard the celebrated, profit-limiting Vinson directive on textile pricing (BW—Jan. 15 '44, 10104) as O.K. for multiple-line producers (for which it really was intended). This directive made it possible for OPA to allow, on any essential item, a price of cost plus 2%, depending on its overall profit. But the directive hasn't been liberal enough to bring out the production of single-line mills, which can't recoup the losses they suffer on one item by heaping up fat profits on others.

The trouble is that to take care of single-line producers OPA would be forced to set up profit standards for individual companies. This would necessitate a particularly dangerous brand of "profit control."

OPA is also subject to price pressure from another direction. Cotton interests have got together with congressmen, charged that OPA has fixed cotton textile prices so low that the effect has been to force the sale of raw cotton (which is not under a ceiling price) at less than parity. In effect, say the con-



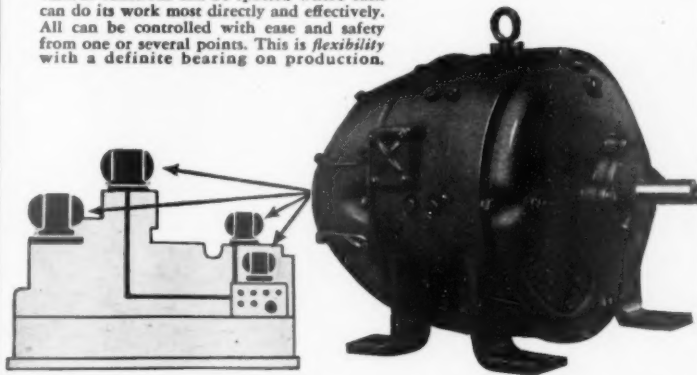
FLEXIBILITY



To designers and users of modern production machines Reliance Motor-drive offers flexibility combined with simplicity. Without gears, brakes, clutches or other mechanical go-betweens it performs all these functions: speed control, reversing, controlled acceleration, braking, remote control, slow speeds for inching, threading or inspection.

Reliance application engineers are production minded. They have had wide experience in cooperating with manufacturers' engineers on specific motor-drive applications. We think you will like the way they work. Just phone or write our nearest office.

This diagram indicates how motors for various functions can be spotted where each can do its work most directly and effectively. All can be controlled with ease and safety from one or several points. This is flexibility with a definite bearing on production.

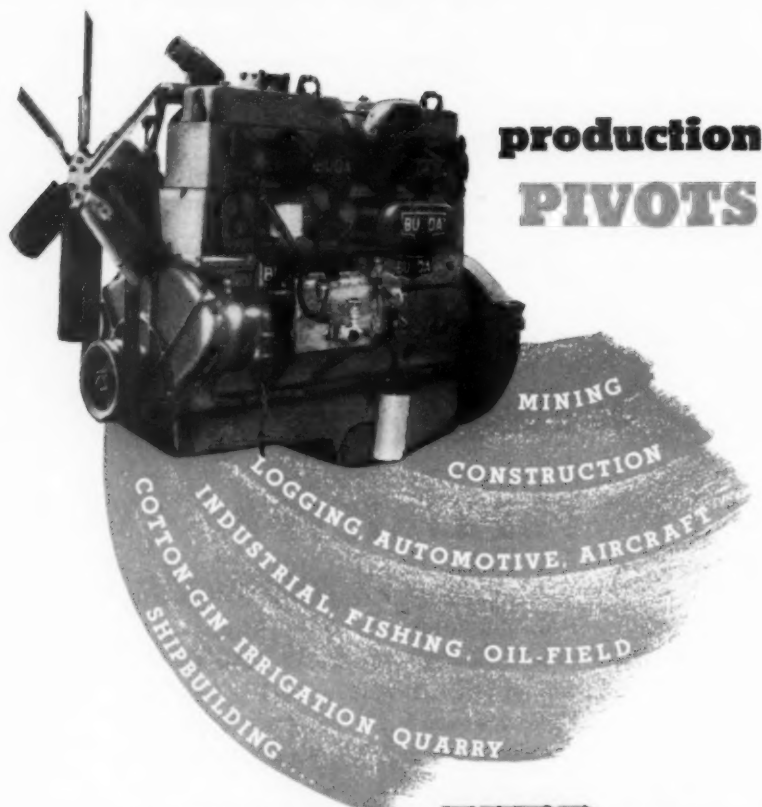


RELIANCE ^{AC} _{DC} MOTORS

RELIANCE ELECTRIC & ENGINEERING CO.

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...on dependable **BUDA** power

SINCE 1910 industry has been using sturdy BUDA engines for all types of power requirements. Smooth, compact, flexible BUDA engines are designed for economical operation on five types of fuel, and somewhere in the wide range of 20 to 320 horsepower there is a model to fit your needs.

For more productive power and longer engine life you owe it to your company to investigate the possibilities of this complete line of BUDA engines. Write or wire for bulletins.



• BUDA model 844 Diesel Marine Engine



• BUDA model 328 Diesel Industrial Engine



• BUDA model 4-DTG-226 Diesel Marine Generator Set

BUDA

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Manufacturers of Diesel & Gasoline Engines • Lifting Jacks • Railroad Equipment

gressmen, OPA has established a below parity ceiling on raw cotton. The price control act prohibits OPA from fixing the price of any agricultural commodity at less than parity.

• **Quid Pro Quo?**—The thinking is that in return for quality standards and dollar-and-cents ceiling prices at retail, OPA might be willing to make some price concessions in gray goods.

Standards already have been worked out for women's cotton house dresses by OPA and OCR. They bear little resemblance to the "utility models" of which the two agencies dreamed a couple of years ago. They include minimum specifications for bust, hip, and length measurements, seam allowances, sweep, and stitches per inch.

To keep from discouraging production, the standards have been made lower than the agencies consider really desirable. They are, for example, lower than those usually used by low-price and mail-order manufacturers.

In addition to quality specifications, the standards require a full range of sizes. This is to keep manufacturers from concentrating on the small sizes which require less material, leaving the fat-and-40 housewife out in the cold.

• **A Pattern**—The WPB program already in effect on infants' and children's wear probably will provide the pattern for action on other essential goods. But officials believe it will have to be tightened up through higher priorities, firmer allocations, closer quality controls.

Last December, WPB set aside yardages of certain materials—broadcloth, print cloth, flannelettes, denim, etc.—for children's wear. Through the requirement that manufacturers use a specified yardage per dozen, there was a rough measure of quality control.

A survey (made at Donald Nelson's request) by the American Home Economics Assn. indicates that the program increased quantity somewhat, but that quality has gone right on deteriorating. WPB is now ready with a second children's wear program which will impose tighter controls over both quantity and quality.

ALUMINUM IS CUT AGAIN

Because production of the virgin metal has been outrunning the needs of the armed services, WPB has ordered the Aluminum Co. of America to shut down two more lines at the government-owned aluminum reduction plant in Maspeth, N. Y., each with an annual capacity of 36,000,000 lb. (BW—Jan. 8'44,p34).

The excesses, it was emphasized, are in metal, not in aluminum products.

PRODUCTION

Quinine for All

Polaroid Corp. discloses it will not manufacture man-made malaria remedy, but will license approved organizations.

When the scientifically exciting story of the synthesis of true quinine (BW-May 6 '44, p. 5) by chemists of the Polaroid Corp. broke prematurely in the newspapers on Wednesday of last week instead of getting its premiere in the *Journal of the American Chemical Society* on May 8, as planned, to conform with good scientific manners), the immediate reaction of government procurement experts was that the man-made drug had "no practical significance from a war standpoint."

• **WPB Interested**—Just a few hours thereafter, the same experts went into action when they began to appreciate that significant quantities of quinine (normally derived laboriously from tree-grown quinine) are produced simultaneously by the same chemical reactions that lead up to quinine, and that the important heart sedative is in such short supply that physicians are prescribing it only to quiet the most serious cases of paroxysmal ventricular tachycardia that send pulse beats up to 200 and 250 a minute.

Upshot is that officials of WPB's chemicals bureau are meeting with representatives of Polaroid Corp. this week to "determine the possibility of commercial production" to relieve civilian shortages, if not to make military supplies less "desperately acute."

• **Will License Process**—Whatever the decision, Polaroid will not go into drug manufacture; its president and director of research, Dr. Edwin H. Land, has already established the company's position by saying: "We do not expect to manufacture the products involved, but intend to license the process, after consultation with government authorities, to such organizations as are best fitted to assure the broadest usefulness for the scientific discovery. We intend to use any proceeds so far as practicable in furthering similar scientific projects."

• **The Quest**—How an optical concern like Polaroid should get into the synthesis of a drug like quinine is explained by the fact that when a supply was available it took advantage of the light-polarizing characteristics of microscopic quinine crystals in the manufacture of

light-polarizing lenses, films, and other components for optical products ranging from civilian sun glasses and cameras to intricate and still secret military instruments.

When the drug was placed under a limitation order in April, 1942, the company appealed for permission to use quinine in limited quantities for about a month while it sought a substitute. The appeal was granted in order to permit the filling of military orders.

• **The Hunt Continues**—Despite the fact that Polaroid chemists found a satisfactory light-polarizing substitute for quinine almost immediately and had no further commercial need, Dr. Land decided early in 1943, because of the medical need, to initiate the research project whose successful completion in the phenomenally short space of 14 months made front page news everywhere.

Practically everyone knows by now that Land gives full credit for the synthesis to two young scientists—Dr. Rob-

ert B. Woodward, who doubles as a consultant to Polaroid and a member of Harvard University's faculty, and his assistant, Dr. William E. Doering, formerly of the Harvard faculty and now an instructor in organic chemistry at Columbia. Woodward reached the age of 27 last Apr. 10, and Doering will be 27 on June 22.

• **Ten-Page Program**—What everyone has not read is that they started out with a ten-page research program laid out by Woodward, setting forth his concept of the steps involved, and stuck to it closely. They used no startling equipment, no unusual chemicals, and had no special luck, except in finishing the task in 14 months.

• **Atoms Rearranged**—To put their job into lay language, they took benzaldehyde (C_6H_5CHO)—an aromatic liquid derived plentifully from coal tar and used in textile dyeing—added other more or less common materials, altered the arrangement, or "architecture," of atoms in mysterious ways, and ended up with the bitter, white crystals of quinine.

• **Yield Is Small**—Yield of the synthesis thus far is disappointing, since it totals less than half a gram of quinine, a little more quinidine, and a few drops of



POSTWAR SHIP POWER

General Electric revealed some of its thinking on gas turbines at this week's Tulsa (Okla.) meeting of the American Society of Mechanical Engineers by means of a scale model of a proposed 3,000-hp. marine job in the hands of J. K. Salisbury, G-E engineer. Multiple combustion chambers are fed with

oil through a fuel ring (right) and compressed air through bifurcated square ducts. Gaseous combustion products drive a single-stage turbine which in turn revolves a multi-stage compressor and a reduction gear (left) for a future propeller. Fuel and mechanical efficiencies promise to be high; space requirements will be low, permitting larger cargoes.



Air at Work BRINGS SPRUCE LOGS TO THE STOCKING COUNTER!

LIFE BEGINS, for a rayon stocking, in a mess of spruce logs and cotton linters. Both are rich in cellulose—the raw material of rayon—that is as weather-sensitive as a new-born babe. In fact, satisfactory rayon thread was never produced until *conditioned air* took over the job, nursing it along through acid baths and whirling machines to the point where it emerges as a strong, sheer stocking or piece of cloth. Let's see just how it works . . .

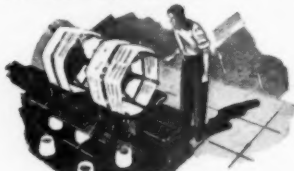


1. Cellulose must first be stored at 70°F. and 55% humidity for proper seasoning. Then *Air At Work* through steeping, shredding and churning operations reduces it to a gummy liquid . . . maintaining required temperatures and humidities . . . guarding against impurities and air bubbles that would lead to yarn failures and profit-robbing rejects.

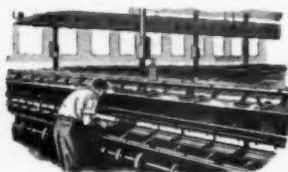


2. This liquid is forced through a series of pin-point holes into a seething acid bath where it is transformed into a hair-thin thread of yarn. Again, *conditioned air* prevents crystallization of the viscose solution . . . and—most important—*air exhaust* carries away the dangerous acid fumes that would hamper production.

3. Between washing and drying the "cakes" of thread and winding the thread into cones, *conditioned air* is used for many purposes, including moisture and temperature control to prevent workers' hands from perspiring and soiling the thread and maintaining moisture content in finished cones for the knitting machines.



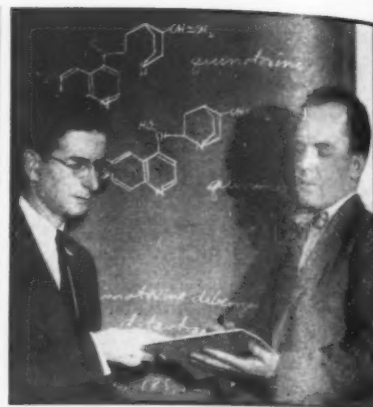
4. *Conditioned air* is on the job in knitting rooms, too. It controls static electricity . . . prevents excessive scrap and rejects, brittle or "furred" fibers. And finally, *Air At Work* in the finishing room absorbs the fog of vapor around the boiling-off, dyeing and rinsing processes . . . keeps production in high gear.



ALL TOLD, you buy 1150 pounds of *Air At Work* with each pair of rayon stockings! The part *AIR* plays in manufacturing precision and economy may give you an idea for after Victory. Let Sturtevant work with you now, in post-war planning and conversion, to better your peace-time competitive standing by *putting air to work* . . . to air condition, ventilate, heat, convey, control dust or fumes or burn fuel *more economically*.

B. F. STURTEVANT COMPANY
Hyde Park • Boston 36, Mass.

Sturtevant
Puts Air to Work



Dr. Robert B. Woodward (left) and Dr. William E. Doering, codiscoverers of synthetic quinine, check its chemical "architecture" and find it identical with the natural product.

quinotoxine, a poisonous oil that normally is found in cinchona bark, from about five pounds of chemicals—less than 1% but no less than the yield of penicillin when that drug was put into commercial production.

• **Quinine Derivatives**—It may or may not be surprising that the two colleagues synthesized practically every alkaloid found in natural cinchona bark at one step or another in the total synthesis. That fact will prove important and profitable to any pharmaceutical firm undertaking synthetic quinine production, for it means that companies interested in quinine derivatives will be making them in the process.

Although the most recent reports from troops in malarial regions indicate that Atabrine is "proving satisfactory as a replacement" for the natural drug "except in allergic cases," the medical and lay consensus is that the government should and will give the green light to man-made quinine—if only to make the United States as independent of foreign sources of supply as it is (or will be) of natural tree rubber.

NORDEN PLANS RESEARCH

Norden Laboratories Corp., the new research and development subsidiary of Carl L. Norden, Inc., aims at a postwar industrial clientele.

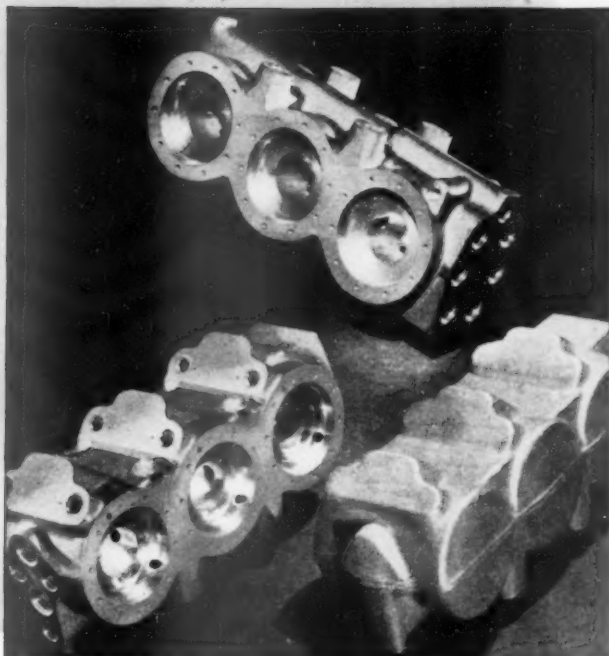
Norden's announcement last week said that such postwar business would be the first time the 26-year-old Norden organization proposed to work for any customer other than the United States government. Its inventions include the Norden bombsight, an aircraft automatic pilot, launching and landing mechanism for aircraft carriers, and a radio-controlled target plane.

FORGED

for soundness

MAGNESIUM

for light weight



Typical of many wartime products of American Magnesium Corporation is this forging, machined as you see it here into a part for an automatic pilot. It is very light in weight, magnesium's outstanding characteristic. It is sound, because it's a Mazlo forging. It provides excellent machinability, a property of all magnesium alloys.

Magnesium forgings enable you to achieve the ultimate in lightness with safety, because of their high strength-weight ratio. Many a warplane carries evidence of the dependability of these magnesium products.

In addition to forgings, ranging in size from

tiny pieces to those weighing many pounds, American Magnesium is producing magnesium alloy products in all other forms; sand castings, permanent mold and die castings, screw machine products, shapes and sheet. More than twenty years of experience in fabricating magnesium goes into these dependable products.

If you are wondering about ways of utilizing the weight-saving ability of magnesium alloys to best advantage, our engineers will gladly assist you. Write Aluminum Company of America, Sales Agent for Mazlo Magnesium Products, 1711 Gulf Bldg., Pittsburgh 19, Pa.

MAGNESIUM



PRODUCTS

**AMERICAN MAGNESIUM
CORPORATION**

SUBSIDIARY OF ALUMINUM COMPANY OF AMERICA

Artillery Is Pushed

Heavy guns are needed for siege warfare, so the Army has turned the heat on the steel industry for greater volume.

Lessons learned in the tedious advance overland in Italy are primarily responsible for the Army's rush to boost to imposing totals the production of heavy artillery and shells. The resultant demand for steel, for forging and machining capacity, and for skilled manpower is responsible for some of the recent gray hairs in the War Production Board and the War Manpower Commission.

• **Siege Guns**—As long as there is to be siege warfare or much likelihood of it, the Army has found that it needs the heavy guns—155-mm., 8-in., and 240-mm.—to reach across territory denied the infantry and smash the enemy in his rear strongholds.

How much steel it needs and how much it is going to spend for the facilities to manufacture the guns and shells the Army won't say. But it will be plenty because these projectiles weigh from 95 lb. to about 350 lb. It is significant that some mills in the Pittsburgh and Cleveland ordnance districts are reported booked to capacity. One report is that 55,000 tons of steel monthly will be required in the Cleveland district alone. The program is understood to center in the Pittsburgh district, with Cleveland and Chicago districts getting some and a little going into the Cincinnati district.

• **Kaiser to Help**—The Kaiser Steel operations at Fontana, Calif., will be in on the program under a \$25,000,000 contract signed recently. Kaiser will roll the billets at Fontana, do rough forging and machining in an annex there, reported to cost \$8,000,000, and ship them to Denver, where a part of the Denver ordnance plant will be turned over to him for final machining. It is expected that 1,000 skilled machinists will be needed at Denver for this job.

Weirton Steel, at Weirton, W. Va., will make its first end products of the war under the program after it completes its \$3,000,000 facilities for the manufacture of 8-in. shells. The Watertown arsenal reportedly will finish 240-mm. shells and manufacture gun tubes, and the Frankford arsenal in Philadelphia may enlarge its traditional function as a development agency to make either tubes or shells.

• **Barrels Wear Faster**—The battle experience which has indicated a far



LIGHTER AND SMALLER

In its earliest form, the superpowerful electron microscope was too heavy and bulky to be moved from permanent laboratory installations. But General Electric and the Radio Corp. of America are experimenting with small models that will be suitable for use in the field, in hospitals and factories. Igor Bensen (right), G. E. development engineer, demonstrates one of the two "suitcases" in which his company's 135-lb. model is packed. Dr. V. K. Zworykin (above), associate director of RCA laboratories, operates the firm's console model. Another new RCA development is a laboratory

type that's much smaller than the original microscopes. All three models magnify 100,000 diameters.



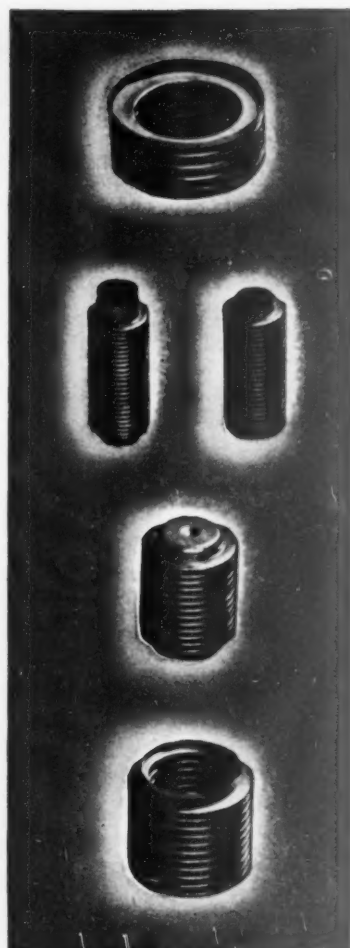
DIESEL PLANS CONFIRMED

Just six weeks ago the management of Fairbanks, Morse & Co. felt pretty strongly that "reports which have been going ahead full-blast in the diesel-electric locomotive business are premature" (BW—Apr. 1 '44, p. 32).

This week R. H. Morse, Jr., general sales manager of the firm, confirms the reports by announcing that a "new line of diesel-electric locomotives, employing our diesels of the type up to now pre-empted by the Navy for submarines and surface craft will soon be offered to American railroads by Fairbanks, Morse & Co." Locomotives of all types are contemplated—passenger, freight, switching, and dual-purpose—in standardized units. The first one of the new line is expected to be ready for service late this year.

greater expenditure of ammunition than had been counted upon teaches another lesson—that today's high projectile velocities wear out gun barrels faster than ever. Complicating this is the fact that today's gun barrels are not normally fitted with a removable liner as they used to be but are fabricated in one piece. The difference in steel and machine time for this item alone will be considerable.

Experts say that the program can hardly be in full blast before midsummer. Thereafter, they expect it to continue at a high rate, with its present top priorities, as long as any major need for equipment of this kind is in prospect. It is notable that little use has been found thus far in the Pacific for the heavy guns, although the 155-mm. Long Tom has been used in some places.



Bellows are available as units or as a part of complete assemblies manufactured to customer's specifications.

TO YOUR SPECIFICATIONS...

SYLPON BELLOWS are regularly manufactured in diameters ranging from 7/16" O.D. to 12" O.D. but for special purposes other sizes have been produced. The two bellows above are examples... the larger one being 68" O.D. and, the smaller one, in the girl's hand, being 1/4" O.D.

Whatever your bellows requirements, there are definite advantages in dealing with the originators

of the Sylphon seamless metal bellows... The Fulton Sylphon Co. Their broad experience and vast engineering and manufacturing facilities are at the disposal of prospective users of bellows and bellows assemblies. Why not consult them *now* regarding your present or post-war requirements. Bulletin JW-535 sent on request.



SEAMLESS METAL...

SYLPON BELLOWS

BELLOWS ASSEMBLIES...
TEMPERATURE CONTROLS... SINCE 1904

THE FULTON SYLPON CO., KNOXVILLE 4, TENNESSEE

Canadian Representatives, Darling Bros., Montreal, Canada



**DID YOU SAY
TO THROW
THIS FILE AWAY?**

ARE YOUR NERVES on edge? Why not get rid of the irritating noise demons once and for all? Trap them in a ceiling of Armstrong's Cushiontone. The cost is probably less than you imagined, as your Cushiontone contractor will be glad to prove, without obligation.

Tiny holes absorb up to 75% of all noise striking the ceiling . . . give Cushiontone a remarkably high efficiency that's permanent—unaffected even by repainting.

COMPLETE FACTS and the name of your nearest Cushiontone contractor will be sent on request. Armstrong Cork Company, 3005 Stevens Street, Lancaster, Pa.




**NO, I SAID I CAN'T
STAND THIS NOISE
ANOTHER DAY!**



FREE BOOKLET gives all the facts and illustrates what Cushiontone has done for many other offices. Let us send you a copy.



**ARMSTRONG'S
CUSHIONTONE**

Made by the  makers of
Armstrong's Linoleum and Asphalt Tile

NEW PRODUCTS

Versatile Butt Welder

Designed originally by Continental Machines, Inc., 1301 Washington Ave. S., Minneapolis 4, to weld band saws for its DoAll contour machine, the new DoAll Butt Welder will join not only saw blades up to 14 in. wide but many other things. Extensions to drills, ream-



ers, screwdrivers, small grinding wheels, metal measuring tapes, and single-blade cutting tools can be made to order quickly, provided the diameters are 2 in. or under. Broken tools of like sizes can be salvaged. Production of such vital military items as tubular, rip-cord rings for parachutes is already being simplified and expedited.

Operation consists of five steps: (1) flattening the ends of two pieces to be joined on an inbuilt, guarded grinding wheel (top center); (2) clamping the two pieces into welding jaws; (3) pressing the welding switch; (4) pressing the annealing switch; (5) dressing off weld flash on the same grinder. The welder is available in both the portable, bench type illustrated and a stationary pedestal type with space in its base for extra lengths of band saw, extension rods, and small tools. Either type can be equipped with an electric etching attachment for marking tools, templates, mechanical parts, whatever.

Portable Belt Conveyor

Quick-acting, safety-type "cam-lock" supports provide rigidity and a wide range of adjustments for the new Steve-dore Jr. Portable Power Conveyor, manufactured by the Rapids-Standard Co., 535 Bond Ave., Grand Rapids, Mich., for such varied jobs as loading trucks and freight cars, stacking bags and packages, and "boosting" gravity conveyor lines. It is reported to operate in "any" adjustment from a horizontal level of 14 in. to a delivery height of 74 in. at

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DITTO

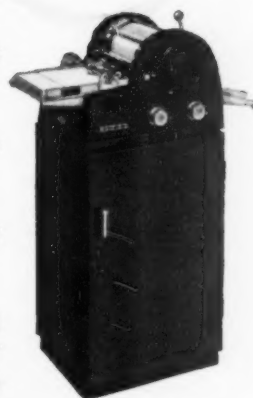
ONE-
WRITING
Business Systems

PRODUCTION — Save up to 36 hours getting orders into the shop!

PAYROLL — Obtain all records from one single writing!

PURCHASING — Get raw materials into your plant 10 days faster!

ORDER-BILLING — Eliminate 90 per cent of all typing! MAIL COUPON TODAY for free samples showing how DITTO One-Typing Business Systems work!



MAIL THIS COUPON TODAY

DITTO, Inc.
2290 W. Harrison St., Chicago 12, Ill.

Please send us free, without obligation, actual forms for the following Ditto Systems:
(Check which System you desire)

<input type="checkbox"/> Payroll	<input type="checkbox"/> Purchasing
<input type="checkbox"/> Production	<input type="checkbox"/> Order-Billing
<input type="checkbox"/> Other Systems for.....	

Company Name.....

My Name..... Title.....

City.....

County..... State.....

DITTO, Inc., 2290 W. Harrison St., Chicago 12, Ill.
Manufacturers of Business Machines and Supplies



“Wouldn’t trust him with a baby carriage”



TRUST a father to distrust his own son! . . . It still seems incredible that these boys of two years ago, unused to responsibilities, doubtful of themselves and of their futures, are manning the quarter-million dollar bombers! Yet today they bring the big ships thousands of miles over land and water to destinations and targets, pick up the pin-point islands in the Pacific, deliver devastating bomb loads through flak filled skies, make air war and history!

For their success in one of the war's most difficult and dangerous jobs, credit the quality of their training, and the fact that our pilots get more flight hours before combat service than those of any other nation.

In the step from small planes to multi-motored ships, the flight hours spent in twin-engine trainers powered by Jacobs condition the new pilot to his new job . . . Under hard student

handling, Jacobs engines take more take-offs and more time at full throttle than engines used in combat service . . . and stand up for more than a thousand hours service between major overhauls . . . a record of performance *three times* original specifications or expectations!



THESE Jacobs engines are not merely military specialties . . . will perform as well for peacetime tasks of tomorrow, and at commercial costs! . . . Largest manufacturer of plane engines in the medium power class, Jacobs has a lot to contribute in dependable power at low cost—to both aviation and industry. Inquiries are invited . . . Jacobs Aircraft Engine Company, Pottstown, Pa.



JACOBS • Pottstown, Pa.

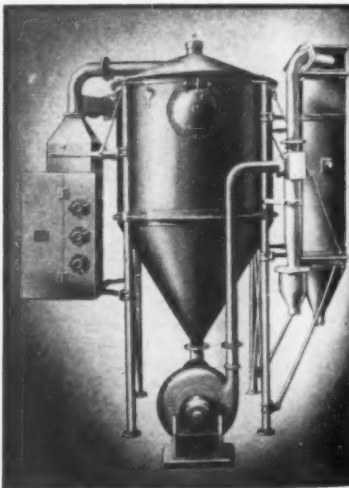
a maximum operating pitch of 30 deg.
Frame is fabricated steel. Cam-
supports have two 6x2-in. rubber-
load wheels and two 3½-in. suppo



wheels which make the unit completely portable. It comes in an 8-in.-belt size with a ½-hp. motor and a 12-in.-belt size with a 1-hp. motor and is said to have power enough to “carry at 30% pitch a 225-lb. distributed load at a speed of 50 ft. a minute.”

Spray-Drying Unit

The new Tubulaire Spray Dryer, developed by the Western Precipitation Corp., 1016 W. 9th St., Los Angeles 15, is one of the first completely “packaged” units of its type. It is said to be



“not only ideal for small-scale drying operations of virtually any liquid product—whether it be a true solution, suspension, or slurry—but also a highly efficient and economical solution for anyone wishing to do experimental work on diversified drying applications.”

Standard equipment includes electric heater, 4-ft. desiccator with cone bottom and hand-operated mechanism for sweeping surface accumulations from the conical section, Multiclone collector, fan, bag house, and control instruments—all mounted on a single frame to occupy floor space of only 5x9½ ft. and headroom of about 10½ ft. Special equipment can include filters, sealed glass sight ports for inspections of work in progress, and other refinements.

Rated water evaporation capacity is 25 lb. an hour with an inlet-to-outlet temperature differential of 300F. A wide market is foreseen because many manufacturers are beginning to experiment with postwar possibilities in the wartime practice of drying various products to reduce shipping weight, conserve space, save packaging materials, and cut costs.

THINGS TO COME

Experimental work on blowing plastic bottles in molds normally used for glass is making progress. Plastic will probably be polystyrene for lightness, strength, clarity, and imperviousness to liquids. Mechanical blowing is not yet worked out, but the experimenters are beginning to get rid of the "bugs" in the process. First production bottles will be in small sizes for the pharmaceutical trade. Plastic milk bottles will have to wait.

Maintenance of clean, odor-free floors in the rest rooms of postwar factories, offices, stores, schools, and other more or less public buildings will be considerably easier, because the partitions between toilets will be suspended from the ceiling with enough clear, postless space below them for sweeping and scrubbing.

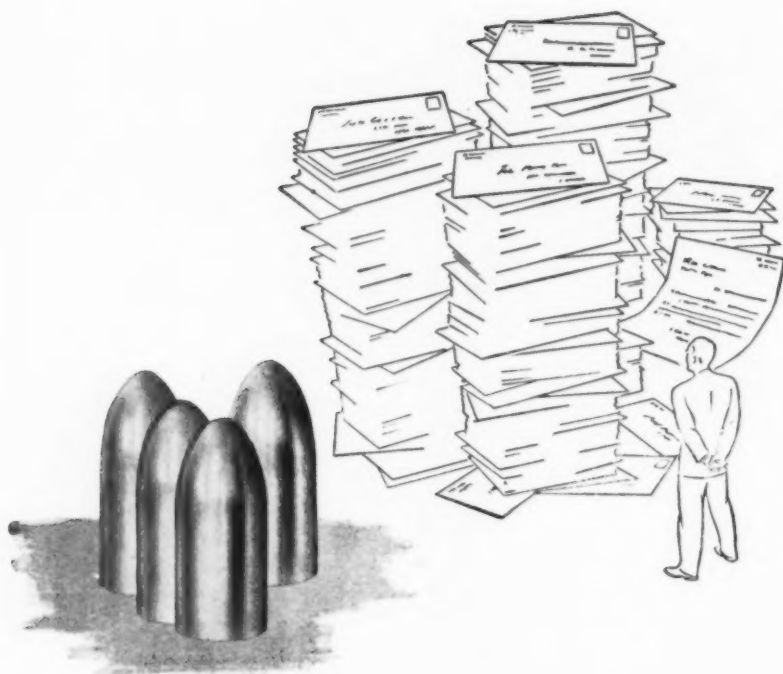
Railroads of the future may meet claims for damage in freight shipments due to rough handling in transit with automatically metered records, untouched by human hands, showing just what happened to a train between departure and destination. The railroad shipper of the same era may counter with similar records made by a vibration-sensitive graphic meter fastened to the floor of a freight car as a routine procedure in stowing any carload of fragile merchandise ranging from prosaic eggs to complex mechanical equipment.



DON'T tug too hard, Rover! You'll have plenty of use for that chain leash before the war's over . . . and we can't make you another until then. However, we can make chains for every essential need: industrial, marine, farm, automotive. And International's manufacturing and service facilities are complete in every detail.

INTERNATIONAL CHAIN
& MFG. CO., YORK, PA.

The
CAMPBELL
Line



HOW MAKES FRIENDS AND INFLUENCES YOUR CUSTOMERS

THE uniformity resulting from Hackney production volume helps you maintain your list of satisfied customers. And the strength, light weight and extra years of trouble-free service that are assured by Pressed Steel Tank Company's 40 years of experience, help you eliminate complaints.

In Hackney Deep Drawn Shapes and Shells, research and quality control, from raw material to finished product, are transformed into safety and economy for the user.

Products destined for the war effort keep rolling off the production lines of the Pressed Steel Tank Company. As war requirements become less stringent and more material is released for civilian needs, Hackney plans to make products available to every concern. Write for details.



Pressed Steel Tank Company

MANUFACTURERS OF HACKNEY PRODUCTS
General Offices and Factory: 1493 South 66th Street
Milwaukee 14, Wisconsin



WAR BUSINESS CHECKLIST

A digest of new federal regulations affecting priorities, price control, and transportation.

Increased Civilian Supply

War Food Order 42 (formerly FDO 42), as amended, increases from 60% to 70% the fats and oils quota for the manufacture of **paints, varnishes, coated fabrics, and linoleums**, and raises from 10,000 to 15,000 lb. the quarterly allotment available without restriction to manufacturers who were using fats and oils before July 1, 1943. . . . Zinc, alloy steel, and aluminum may be used in the manufacture of **medical and surgical furniture** and related equipment by an amendment to Schedule 3 of WPB Order L-214; applications for aluminum must be approved under Order M-14. . . . Some 8,000,000 lb. of the 1943 crop of fish and marine animal oils held in government reserve are released by the War Food Administration for uses allowed by WFO 60; 2,000,000 lb. of whale oil and 1,000,000 lb. of cod oil are freed for use by leather processors.

Relaxation of Priorities

To speed up delivery of floodlights to military establishments and war plants, WPB will permit distributors to acquire minimum inventories of standard sizes of floodlights without extension of customers' preference ratings, by applying on WPB Form 547. . . . Restrictions on the use of aluminum, alloy steel, and certain other materials have been removed from WPB Order L-114, covering **safety equipment**; the use of aluminum is still limited by Order M-1-i, and special alloy steels other than N. E. triple alloy are still controlled by the WPB Steel Division. . . . As a result of a freer supply of chromium and nickel alloys, WPB has revoked Conservation Order L-134, which restricted the use of chromium, nickel, or any alloy of these materials in the manufacture of **industrial instruments, control valves, and regulators**; nickel remains subject to Order M-6-b. . . . Aluminum, chromium, alloy steel, and other materials are available, with some restrictions, for use in making **fire alarm** and protective signal equipment, under WPB's Order L-39, as amended. . . . The amount of new aluminum which may be used in new patterns under Direction 1, Controlled Materials Plan Regulation 5 is no longer limited to 600 lb.; a buyer may place controlled materials orders for **aluminum patterns** by using the MRO symbol and the certification set forth in CMP Regulation 7.

"Special" Sales

Special sales of finished products may be made without preference ratings or special authorization if the seller holds not

A cotton harness GUARDS HIS LIFE


["Never waste a life" is the precept
and practice of our Army and Navy.]

Every American flier must be protected by a parachute that is perfect in every detail. No pains are too great to make sure that the chute will open the instant he pulls the rip cord. When that moment comes, the harness that holds the flier to the chute must be strong to hold its human cargo firm.

Before the war and during its early months, parachute harness was made from linen or imported long-staple cotton. Those materials rapidly grew scarce. But the Army and Navy needed more and more parachutes, more and more harness. They demanded harness that would stand the strain as well or better than any ever used before.

Drawing on years of experience in its own textile mills, United States Rubber Company scientists transformed plentiful American grown cotton into a new super-strength yarn... a yarn lighter and stronger than the materials used before the war.

Today, parachute harness made from this Ustex yarn protects the lives of American fliers and paratroopers all over the world.

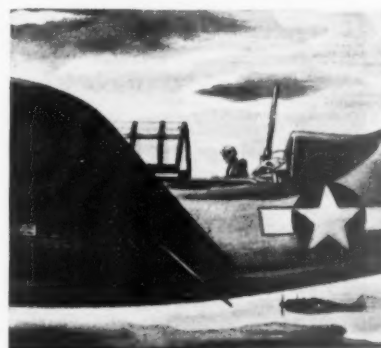
SERVING  THROUGH SCIENCE that men may live to build a better world



Ready for instant use, the parachute is strapped to the flier as a seat pack. A parachute is no stronger than the harness that holds it to the flier. It must be of great strength to stand two to four tons of shock when the parachute opens.



Ustex yarn is as much as 70% stronger than untreated yarn. This means that Ustex yarn has more than enough strength to take up the tremendous strain and shock. Today Ustex far surpasses linen both in strength and lightness.



Parachutes with harness strongly woven of Ustex yarn guard the lives of our fliers and airborne troops over every land and every ocean. This Navy aerial gunner is ready for any emergency, his chute firmly strapped to him by Ustex webbing.

Listen to the New York Philharmonic-Symphony program over the CBS network Sunday afternoon, 3:00 to 4:30 E.W.T. Carl Van Doren and a guest star present an interlude of historical significance.

UNITED STATES RUBBER COMPANY

1230 SIXTH AVENUE, ROCKEFELLER CENTER, NEW YORK 20, N. Y. • In Canada: DOMINION RUBBER CO., LTD.

WAR-BUSY AMERICA
EATS WHERE IT WORKS!



You can help eliminate that mid-shift letdown by serving refreshments to your workers on the job—authorities agree this provides pep and energy right up to quitting time. And the easiest, most practical way of serving workers is with this new PIX ROLLING SNACK BAR.

Light in weight, compact, easily handled even by a girl... this new PIX ROLLING SNACK BAR provides facilities for serving sandwiches, beverages, candy, fruit and pastry... with ample room for accessories.

PIX ROLLING SNACK BAR is another development by Pick Engineers to help solve industrial feeding problems—so vital these days when fewer workers bring their lunches and restaurants are more crowded.

Send for illustrated folder S.B. 6

ALBERT PICK COMPANY, INC.
2159 Pershing Road, Chicago 9



FEEDING EQUIPMENT
For War Industries

more than \$100 worth of the particular type of article that he is offering for sale. (Special sales are defined by Priorities Regulation 13 as sales by a person who does not in his regular course of business sell such materials or products in the form in which he holds them.) By revising List A, containing classes of buyers who may purchase industrial materials under the regulation, WPB now permits sales of aluminum in controlled material forms without priorities to wholesale dealers who sell aluminum in the regular course of their business. In other than controlled material forms, aluminum may be sold without priorities to a purchaser who may use it under WPB regulation. Slide fasteners have been added to List A, indicating that a special sale of these articles needs special authorization; shellac has been removed from the list. (Priorities Regulation 13, as amended.)

House Trailers

The 3,000 house trailers that were recently authorized for production (BW—Mar. 11 '44, p. 71) are designed primarily for essential workers whose jobs require them to be able to move from place to place. Included are farm workers, construction workers on irrigation, highway, and similar projects, oil drillers, special groups at isolated points engaged in railroad maintenance, and others. The trailers are also available for emergency housing in case of fire or flood; for small special groups, such as doctors, nurses, religious workers, and soldiers discharged for disabilities; and for essential war workers who would not migrate to a critical labor shortage area because of inadequate housing. Manufacturers of the trailers, as well as dealers, may obtain authorization from WPB to sell if the prospective purchaser belongs in one of the specified groups; sales to dealers need no authorization.

Rayon Hose

Full-fashioned and seamless hosiery may now be made of 100 and finer denier rayon yarns on machines of coarser gages. WPB has amended its hosiery order to allow rayon leg yarn of 100 denier to be used on 260 and 280 needle seamless machines; 75 denier leg yarn on 300 needle machines; and 50 denier semihigh-tenacity rayon yarns on 400 needle machines. Heels and toes of seamless stockings may be made of part rayon and part cotton. This action allowing manufacture of a finer rayon stocking than has been permitted before looks forward to the time when nylon hose will be released for production and, in effect, places rayon hosiery producers in a better competitive position than they were allowed under former restrictions. (Order L-274, as amended.)

Ice Cream

In a further step to give ice cream makers full advantage of the peak milk output, the War Food Administration has promised manufacturers of frozen dairy foods that they may make more ice cream this May and June than they were allowed to make last year in these months. In addition, the ice cream will be richer than it has been



Camfield Mfg. Co.
Grand Haven, Mich.
Emerson Radio & Phonograph Corp.
New York, N. Y.
C. E. Erickson Co., Inc.
Des Moines, Iowa
Kimble Glass Co.
Vineland, N. J.
Philip Knitting Mills,
New York, N. Y.
Standard Tool Co.
Leominster, Mass.
Voss Bros. Mfg. Co.
Davenport, Iowa

MARITIME COMMISSION M AWARDS

Aetna Sales Corp.,
Pottsville, Pa.
Crocker-Wheeler Electric Mfg. Co.
Ampere, N. J.
E. F. Hauserman Co.
Cleveland, Ohio
Pacific Valve & Pump Exchange
Long Beach, Calif.
Washington Stove Works
Everett, Wash.
Western Industrial Eng. Co.
Los Angeles, Calif.

(Names of winners of the Army-Navy and Maritime Commission awards for excellence in production announced prior to this new list will be found in previous issues of Business Week.)

at any time since February, 1943. The percentage of milk solids a producer may use will be 75% of use during the corresponding months of the base year instead of 65% maximum milk solids content of ice cream will be 24% instead of 22%, the rate previously in effect.

Bread

Producers of bread and bakery products will find it easier to obtain increases in their maximum prices under a plan recently announced by OPA. A producer no longer has to show that a local shortage would exist if he were forced out of production by price ceilings. 'Increases may be granted if a producer's ceiling is below the level prevailing in his area generally and if the loss of his production would force consumers to pay higher prices for the nearest substitute product. Dealers may increase their ceilings by an amount not in excess of the increase granted to producers.

Processed Foods

To help OPA spot threats of local food shortages, wholesalers of processed foods who operate more than one establishment in a single state will report their inventories on a county basis rather than on a state basis. In special cases, where such a method



POWER TO WAGE WAR AND TO SERVE PEACE

FROM the very beginning, GM Diesels have been tested in the crucible of war. They power tanks, heavy gun tractors and bulldozers; submarines and subchasers; invasion boats and lighters. And everywhere, always, these weapons are proving worthy of the fine fighting men who are using them.

When normal life and living are resumed, GM Diesels will be as ready to step back into private life and resume service in peace as they were to go to war. And you will find them as capable of sure, reliable, low-cost performance on the toughest jobs at home as they are on fighting fronts the world over.

That is because GM Diesel operation is based on simple and sound mechanical principles. GM Diesel construction is exceptionally strong and uniformly precise—the way General Motors always builds.



ENGINES...15 to 250 H.P. . . . DETROIT DIESEL ENGINE DIVISION, Detroit, Mich.

ENGINES...150 to 2000 H.P. . . . CLEVELAND DIESEL ENGINE DIVISION, Cleveland, Ohio

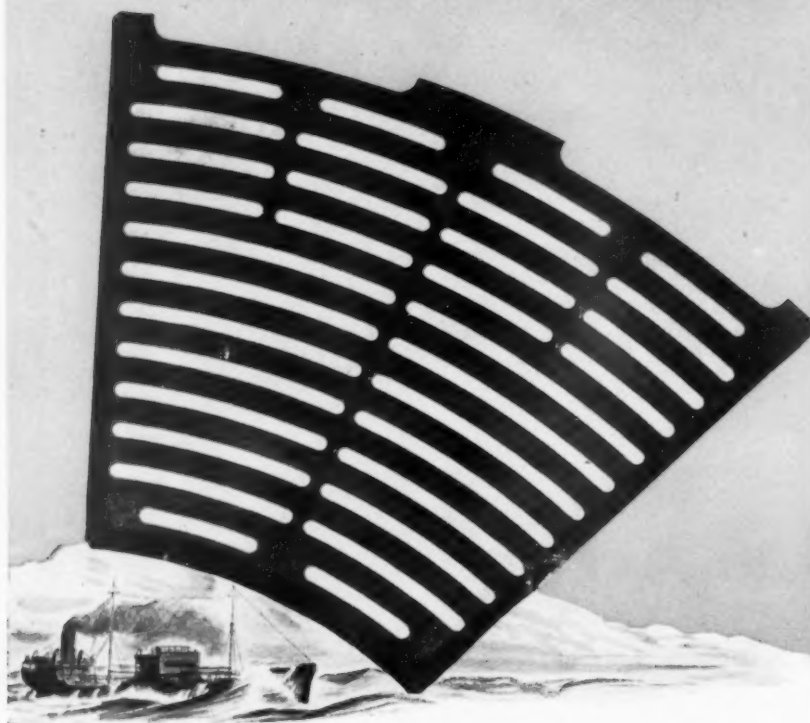
LOCOMOTIVES ELECTRO-MOTIVE DIVISION, La Grange, Ill.



America's farms are going to need GM Diesel power for their tractors. This sure, reliable, low-cost source of power will go far toward solving some of the farmer's most vexing problems. And not the least of these problems is to get more work done, faster and at lower cost in labor and mechanical power. GM Diesels will help.

DISSTON made this valve plate full of slots

stay "flatter than a flounder!"



A great shipyard was having trouble making the valves for the scavenger pumps used to draw foul air and fumes from the holds of tankers. Several factors made this a tough job. The plate had to be made of stainless steel which would resist corrosive fumes. The overall area was large—460 square inches. But 130 square inches had to be cut out for slots, leaving 330 square inches—only 1/16 inch thick. Yet the plate *had to stay flat* to prevent leaks!

Here was another war job which needed care, craftsmanship and a supreme knowledge of steel. So naturally, it was put up to Disston . . . and Disston did it again!



When you have pioneered in various kinds of standard tools for more than a century, as Disston has, you learn how to make steel *behave*. That's one reason why Disston products—steel, files, saws and many types of tools—perform so perfectly in war tasks or peace-time trades. For assistance on tool problems, write to Henry Disston & Sons, Inc., 528 Tacony, Philadelphia 35, Pa., U. S. A.



would work undue hardship, a wholesaler may apply to the Washington office of OPA for permission to combine reports (Amendment 30, Revised Ration Order 13)

Rationed Foods

New restaurants, hotels, lunchrooms, and other institutional users of rationed foods may obtain a reserve allotment equal to 15 days' supply of these foods if the user began operating after Jan. 1 of this year. Similar reserves have previously been made for eating establishments in operation before Jan. 1. (Amendment 60, General Ration Order 5.)

Beef

Ceiling prices for fabricated beef not meeting specifications of the War Shipping Administration have been increased 50¢ per cwt. This OPA order permits slaughterers to supply meats to WSA's inventories, and to remove from such inventories imported fabricated meat cuts for delivery to ship operators. The packer's discount on sales to licensed ship suppliers is increased from 50¢ to 75¢ per cwt. (Amendment 40, Revised Regulation 169.)

In exceptional cases, wholesalers who sell frozen boneless beef to the armed forces may raise their ceiling prices, if the high price is necessary to increase production of this beef for the men in service. (Amendment 41, OPA Regulation 169.)

Great Lakes Grain Shipments

To relieve heavy congestion at the grain elevators on the lower Great Lakes ports, the Office of Defense Transportation has revoked the ruling that suspended shipments of bulk grain on the Lakes and has reinstated shipments of the grain under ODT's permit system. The season's unprecedented movement of bulk grain has made this action necessary, ODT says.

Tires

A retailer who sells passenger car tire reliners made from scrap tires may charge a maximum price of \$2.25 or the highest price he charged in March, 1942, whichever is higher. (Amendment 129, Revised Supplementary Regulation 14.)

When used tires and tubes are mixed with shipments of rubber scrap, they must be sold at ceilings established for scrap rubber, not at those established for used tires and tubes. (Amendment 11, Revised Price Schedule 87.)

Handbags

Women's and children's handbags, pocketbooks, and purses are provided with highest price line limitations by an OPA amendment designed to make more low and medium priced bags available. This ruling does not change manufacturers' pricing methods established under Gen. M. It does provide that after June 15 highest price line limits will be the individual manufacturer's highest price line for each type of handbag delivered during October and

How to make a chemist bat an eye...



To a lot of folks there's nothing more beautiful than a girl or a sunset or a good cigar. But take a hard working chemist, as we did, and watch his face light up when he sees a graduated cylinder that won't roll off his bench onto the floor and bust when he knocks it over.

What's so different about this "Pyrex" laboratory cylinder? For one thing, it has a hexagonal instead of a round base. It won't roll if it's knocked over. And because graduates do get knocked over, there's an extra bulge of glass near the top to protect the fragile rim. The pouring lip, by the way, gets extra protection because one point of the hexagonal base comes directly under it.

It's not exactly a world-shaking invention. But it helps chemists, and it illustrates pretty well that glass research thinks about the little things as well as the big.

Here are a few of the larger contributions of Corning research in glass: High speed methods for producing optical glass for the armed services. New extra-durable glass tableware for military use. A new method for welding glass piping for war industries. A new type of resistant glass so impervious to thermal shock that it will not break when plunged red-hot into ice water.

These are just a few of Corning's more recent developments, most of which have come about because for

many years it has been our objective to make Corning "mean research in glass." Perhaps glass can help in your war plant as it has in others. Why not write today? Corning Glass Works, Department 45-B, Corning, New York.

CORNING
—means—
Research in Glass





OREGON is young and vigorous—and our war record proves it! Portland ran up the world's shipbuilding record! Our state agricultural income crops is up 83%. Our tremendous Forest Products Industry contributes 6,500,000,000 board feet of lumber a year for war—and we still have 8,000,000 untouched acres of growing forests!

Our 41st Division, U.S.A., was in New Guinea and Australia when General MacArthur arrived! We're No. 1 in naval recruiting—and in the per capita purchase of Series E War Bonds! Oregon people earn twice the national average for expendable income!

Yes, we're mighty proud of our war record, but our postwar future reaches unlimited proportions! Oregon

has the tools to carve that future, too—mighty tools of perfect climate, unlimited power, measureless forests, and fertile valleys! We're going places in Oregon and invite you to share our destiny!

When Fort Sumter was fired on, *The Oregonian* carried the news to its readers. For 93 years down the length and breadth of the state, Oregon people have depended on *The Oregonian* for complete news coverage; for forthright editorial policy. *The Oregonian* is a tradition in the Northwest—and a part of the life of the region!

The Oregonian

The Great Newspaper of the West
PORTLAND, OREGON

REPRESENTED NATIONALLY BY PAUL BLOCK & ASSOCIATES

November, 1942, or during October or November, 1941; if he prefers. If he did not deliver bags in October and November, 1942, but began delivering them between Nov. 30, 1942, and Jan. 1, 1944, he may take as a base period the first two months after his first delivery. Some of the lower priced lines are allowed prices slightly higher than their base-period limit. Billfolds, baggage, coin purses, sewing kits, knitting kits, waterproof bags, and cosmetic kits are exempt from the regulation. (Revised Supplementary Regulation 14, Amendment 130.)

Theaters

Applications for authority to construct theaters in 13 California areas will be considered by WPB, and permission will be granted if actual need for additional facilities is shown. This announcement follows an investigation by the Office of Civilian Requirements which indicated that theaters were needed in the areas specified.

Other Price Actions

There will be no price control on the first Army procurement of four new constructions of wind-and-water-resistant cloth still in the development stage. OPA has announced. . . . The OPA regulation covering Douglas fir plywood has been extended to include all softwood species except plywood that contains one or more laminations of hardwood veneer (Amendment 1, Second Revised Regulation 13).

Other Priority Actions

All cabrettas and Spanish and Portuguese lambskins that are suitable for aviation gloves and helmets are reserved for this purpose by WPB in Direction 3, General Conservation Order M-31. . . . By amending Allocation Order M-31, WPB has added metallic sodium, styrene, polystyrene, glycol, acrylic monomer, and acrylic resin to the chemicals controlled by that order, and has placed dichlorostyrene and polychlorostyrene—new materials developed for high frequency electrical insulation—under allocation for the first time beginning June 1. . . . One-third of the production of crude sardine and menhaden oil is reserved for specified essential use by War Food Order 60, Amendment 1, which allows unrestricted use of the remaining 1944-45 fish oil production, with three exceptions. . . . Fiber containers for shipping hats, gloves, shoes, clothing, and bedding to the U. S. Navy may be obtained under Preference Rating AA-1, WPB has announced; orders for delivery before Aug. 1 must be placed before July 1 (Direction 1, Preference Rating Order P-14). . . . By amending Housing Utilities Standards, WPB has permitted the use of small additional quantities of electrical conductor for extensions of electric, gas, and water facilities to war housing, to conserve small transformers which might be used instead of these facilities. . . . Bleached shellac has been placed by WPB under end-use control as a maintenance, repair, and operating supply, under Direction 5, Priorities Regulation 3, as amended.

FINANCE

THE MARKETS—PAGE 114)

Decline in Issues

Security market finds that selling job is necessary now in some cases. Many insurance companies retard their buying.

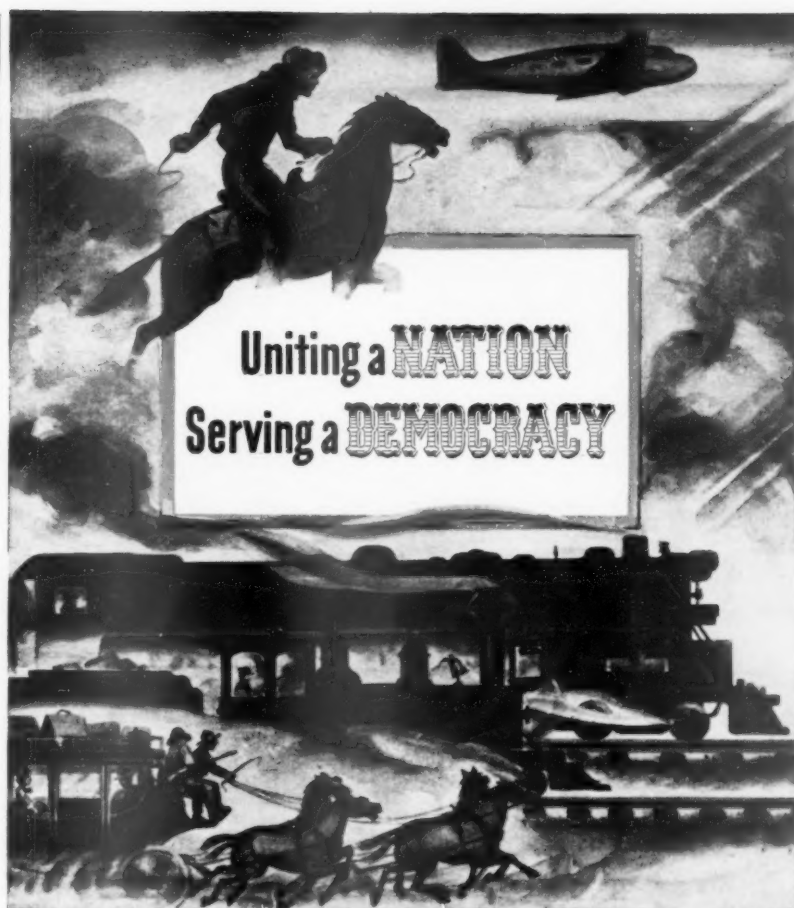
The outlook for the new securities market about six weeks ago appeared quite promising to Wall Street's underwriting group (BW—Apr. 1'44, p. 74). And until mid-April quite a substantial amount of new corporate issues was marketed without a great deal of trouble. A Selling Job—But in recent weeks the business of distributing new issues has definitely turned into a selling job in some cases. As a result, members of certain banking syndicates have been confronted with the task of trying to clear their shelves of the unsold portions of several recent underwritings. A great deal of the sluggishness in the new issues market may be blamed on the nervousness generated by the same case of "invasion jitters" that is plaguing the stock market (BW—May 6'44, p. 75).

Bids Too High?—But not all Wall Street dealers think that invasion jitters present the sole reason. Some believe that certain syndicates, in their desire for new business, have been raising their bids to levels altogether too high in relation to the investment quality of the issue involved. Buyers' resistance has been the result.

That has happened before. However, the yields balked at previously were somewhat higher. The Street sees additional reasons why, if the cause isn't removed, this hint of buyer resistance may turn out to be a more unfavorable factor.

Funds Diverted—For one thing, insurance companies—normally the largest group buying new corporate bond issues—probably will continue to divert most of the funds they will have available for investment into government bonds and issues while the war lasts.

This means that an ever increasing percentage of insurance companies' "earning assets" will bring in income well below that which would normally be received. It follows that when such companies invest what funds they do have available for corporate bonds they are bound to keep in mind the necessity for offsetting, as much as possible, the abnormally low yield of the govern-



NO RAILROADS ran west of the Missouri in 1849, but the Nation's goods and gold went gallantly and steadily through. The Overland Stage Coaches and the Pony Express kept their perilous schedules. Through those means, Express service sped up America's growth, united her far-flung borders and served our young democracy.

Today, nearly a century later, Railway Express is serving America with the same undaunted spirit. Twenty-three thousand express offices are the Trading Posts of 1944. Fast express trains and airplanes follow the stage coach trails. The goods are mostly war materiel now. In peace time they will again encompass every conceivable personal item as well as the products of industry and agriculture.

You can help us carry our share of America's war time shipping load and serve you better by doing two simple things: Pack your shipments securely . . . address them clearly. Our century of experience proves that "a shipment started right is half way there!"



NATION-WIDE

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DON'T put it off

UNTIL "TOMORROW"

IF ADDITIONAL WORKING CAPITAL
WILL HELP SOLVE YOUR PROBLEM

IS lack of working capital causing you to delay plant repairs and maintenance, or put off reconversion steps that should be taken now?

If so, C.I.T. can provide a quick, flexible way of putting your assets actively to work . . . on a basis that permits repayment out of future earnings . . . and makes available adequate funds to carry out your plans.

Sums ranging from thousands to millions are at the disposal of manufacturers, dealers and merchants for business expansion and other current and post war needs.

There's no need to "put off until tomorrow" arrangements for the purchase of modern machinery and equipment or the development of sales and marketing plans.

Without obligation, write or wire C.I.T. We'll gladly discuss ways and means of putting our dollars to work for you on long or short terms.

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BANK DEPOSITS GAIN

The nation's 14,621 banks had total assets of \$128,121,978,000 and deposits of \$118,336,126,000, as of Dec. 31, 1943, according to the annual report of the Comptroller of the Currency.

Deposits gained \$18,070,000, or 18%, during 1943. Reflecting the increase in earnings reported generally last year, aggregate capital funds rose over \$440,000,000 to \$9,045,691,000. Outstanding preferred stock and capital notes issued by many banks during less prosperous times by the end of 1943 had declined 10% to \$343,687,000.

Holdings of U. S. government issues, direct or guaranteed, increased more than 43% to reach the record-breaking figure of \$66,259,000,000. This was the equivalent of 56% of deposits.

Loans, on the other hand, continued their downtrend, totaling \$23,675,000,000 compared with \$24,001,000,000 at the end of 1942. Excluding government bond holdings, other bank investments were down to \$7,467,000,000, compared with \$8,312,000,000 the year before.

ment bond section of their portfolios.
● **Not Sole Reason**—Thus, it's quite possible that insurance companies generally won't be particularly interested in buying any new long-term corporate bonds of even slightly less than prime investment quality if they should continue to be offered at prices that afford yields only a bit above those from shorter-term governments. Wall Streeters who don't think invasion jitters the sole reason for the slowness of the new issues market lately cite the virtual absence of insurance company buying in the case of one recent slow moving large utility bond flotation.

They point out also that while most insurance companies weren't interested in purchasing that issue on a 2.85% yield basis, a number of them closed a privately negotiated deal which obligates their purchase of \$30,000,000 Chicago, Burlington & Quincy 3½% refunding bonds, due in ten years less time, at a price of par.

● **Additional Evidence**—Also, this group can call attention to the sale of \$35,000,000 collateral trust notes that the Pennsylvania R.R. is reported to have arranged privately for its subsidiary, the Pennsylvania Co. The current refunding program recently announced by Republic Steel represents additional proof

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that the insurance companies aren't being bothered by invasion jitters when securities they like are available.

The Republic Steel operation will involve the retirement of its entire present funded debt with proceeds received from the private sale to eleven insurance companies of \$50,000,000 of 10-year 3½% first mortgage bonds at 104% above face value and \$24,500,000 of serial loans.

More Tests Due—However, a more concrete testing of the new issues market will be seen shortly as bids are expected to be opened soon on \$23,000,000 new Virginia Electric & Power 30-year 3% first and refunding bonds and a new \$9,000,000 New Jersey Power & Light 10-year first mortgage issue.

Unwelcome News

Louisville isn't pleased over Axton-Fisher plan to retire preferred stock. Possible loss of important industry is feared.

Recent announcement that Axton-Fisher Tobacco Co. of Louisville will utilize \$1,400,794 cash to retire the company's 13,153 shares of preferred stock on July 1 at \$105 per share, plus the accrued dividend of \$1.50, wasn't welcome news in the Kentucky area where much of the stock is held.

Fears for Future—Rather, this latest move of the far-flung Giannini San Francisco banking interests, whose big Transamerica Corp. investment company has controlled Axton-Fisher since 1941, merely served to reawaken home-town fears concerning the future, and possible loss, of an industry important to Louisville (BW—Aug. 7 '43, p. 30).

For Louisville remembers the charges arising out of the litigation that preceded the call for redemption of the company's Class A stock last year. Louisville also recalls the strong indications when that Class B stockholders, which meant Transamerica and the Gianninis, were primarily interested in retiring all Axton-Fisher senior stock, supposedly as to sell the company and cash in on the substantial profits represented by its huge holdings of fine leaf tobacco.

Profit From Leaf—The company's 1943 operating report (BW—Mar. 11 '44, p. 82) showed that most of the year's profits were derived from direct sales of leaf tobacco and not from its sales of cigarettes.

This condition reflects the relatively higher ceilings for leaf tobacco than cigarettes. This situation may decide the company's fate shortly, since the Gianninis are not tobacco people, and



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A simple, one-hand dispensing arrangement on this M.S.A. Ceramic Model Salt Tablet Dispenser discharges one tablet at a time *every time*. Easy to take apart, clean and sterilize, the Dispenser is so designed that a padlock can be used to lock the unit in position to prevent tampering with the Dispenser or its contents. The streamline-designed, non-corrosive, molded porcelain body is finished in two-tone green. Two sizes—500 or 1500-tablet capacities.

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Packaged in convenient waxed cardboard cartons to keep them clean and free from moisture, M.S.A. Salt Tablets are available in two types—Sodium Chloride and Dextrose Combination or plain Sodium Chloride; each in the 500 and 1500 sizes. Quick dissolving. Write for Bulletin FA-81.



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SALES RESEARCH

Large manufacturer of electrical products needs a broadly experienced sales and research analyst in its New York office. A keen conception of market potentials, consumer attitudes and buying habits is a prerequisite for this work. Applicants must be college trained and should have a leaning toward technical or scientific subjects. The work will require some travel and will necessitate much outside personal contact. The position offers really a worth-while opportunity. In reply, please give complete details as to age, education, business background, and salary desired.

SW382 Business Week
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Universal Pictures Company, Inc.



DIVIDEND

The Board of Directors has declared a dividend of \$1.00 per share on the outstanding stock of the Company, payable May 31, 1944 to stockholders of record at the close of business on May 17, 1944.

WASHINGTON LIAISON

Senate Committee Investigator desires work with reputable, progressive firms as Washington liaison representative or as administrative management analyst-advisor; age 28; 4F; proven integrity, dependable, resourceful; 10 yrs. Federal service; over 5 yrs. experience as investigator, administrative management analyst-advisor; submit details. Harry Magoo, 4035 Conn. Ave., Wash., D. C.

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EXECUTONE puts you in instant conversational contact with every department of your organization! Saves time... conserves energy... minimizes waste motion.

EXECUTONE enables you to get information from your employees *the instant you want it*—eliminates the everlasting running back and forth from one office to another.

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since they are interested in seeing Transamerica report earnings, and are aware that no sizable profits have yet resulted from its investment in Axton-Fisher.

• **Sale Called Off**—It is known that efforts were made some time ago to sell the company, as is, to one of its larger rivals but that the heavy taxes which the deal would have involved resulted in a breaking off of negotiations.

Earnings Drop

Railroads' net income in March drops 37%. Agreement not to fight for rate increase may facilitate legislation.

Class I railroads had net income, after interest and rentals, of \$53,100,000 in March, compared with earnings of \$84,651,000 in the corresponding 1943 period, the Assn. of American Railroads estimates.

• **Consistent Decline**—This 37% drop, largest monthly decline this year, represents the tenth successive month in which earnings of the carriers have run behind year-earlier levels. As a result of the March performance, net income in the first quarter of 1944, despite an 8% rise of \$183,000,000 in gross revenues, probably didn't greatly exceed \$146,000,000, compared with \$209,450,000 for the initial 1943 quarter.

According to A.A.R., thus far in 1944 railroad operating costs, figured

on an annual basis, have been running at a rate some \$535,000,000 higher than in 1943, because of a \$135,000,000 rise in the prices of materials and supplies and about \$400,000,000 in payrolls and payroll taxes.

• **Agreement on Rates**—Nevertheless A.A.R. has announced that the railroads will not fight further suspension of the increased freight rates (authorized in 1942) for another six months period from June 30, 1944.

The railroads, however, did warn the Interstate Commerce Commission that the constantly rising trend in costs and their declining income might make it necessary for the A.A.R. to apply in their behalf for an increase in present general rate levels prior to Jan. 1, 1945.

Probably the rails hope that their agreement not to contest another six-month suspension of the higher rates will expedite favorable action by Congress on recently proposed legislation to abolish "land grant" rate concessions since it is estimated that such action would mean an increase of some \$200,000,000 in annual revenues.

• **Central Protests**—This would not affect all roads. William Wyer, chief executive of the Central R.R. of New Jersey, has advised the A.A.R. that his road "does not acquiesce" in another suspension of the freight rate increases.

Wyer has also asked the presidents of the Lackawanna, Pere Marquette, Union Pacific, Illinois Central, Lehigh Valley, Southern, and Reading systems to join him in similar protests.

STOCKHOLDERS' FORUM

Highlight of U. S. Steel's calendar of events is the annual stockholders' meeting in Hoboken, N. J., where stockholders get sandwiches, pie, and coffee, plus the privilege of hurling plaudits or verbal brickbats at company officials. The 43rd annual meeting last week was peaceful. Irving S. Olds (below left), chairman of the board, and Benjamin F. Fairless (above right), president, personally explained production intricacies to individual stockholders after reporting on operation, wages, income, and prices. Two resolutions presented by stockholders were adopted: (1) that dividends shall not be subject to federal income taxes where the income from which such dividends are paid has already been subject to capital income taxes; and (2) that the assembled



stockholders were proud to number among U. S. Steel's directors, Sewell L. Avery (Montgomery Ward & Co.). Up for re-election, Avery was voted to remain a director for three more years.

MARKETING

Distillers Ration It

To keep liquor out of the black market and to build goodwill with consumers, producers guide retail distribution.

The liquor industry has begun to share the consumer's curiosity as to where liquor goes. The distiller's major fear is that the stocks released through retailers are not distributed to the best possible advantage. Producers are afraid that their whisky (1) finds its way into the black market, or (2) is not sold to consumers by methods which guarantee the greatest number of postwar customers.

And the retailers are worried because their suppliers, the distillers, are worried.

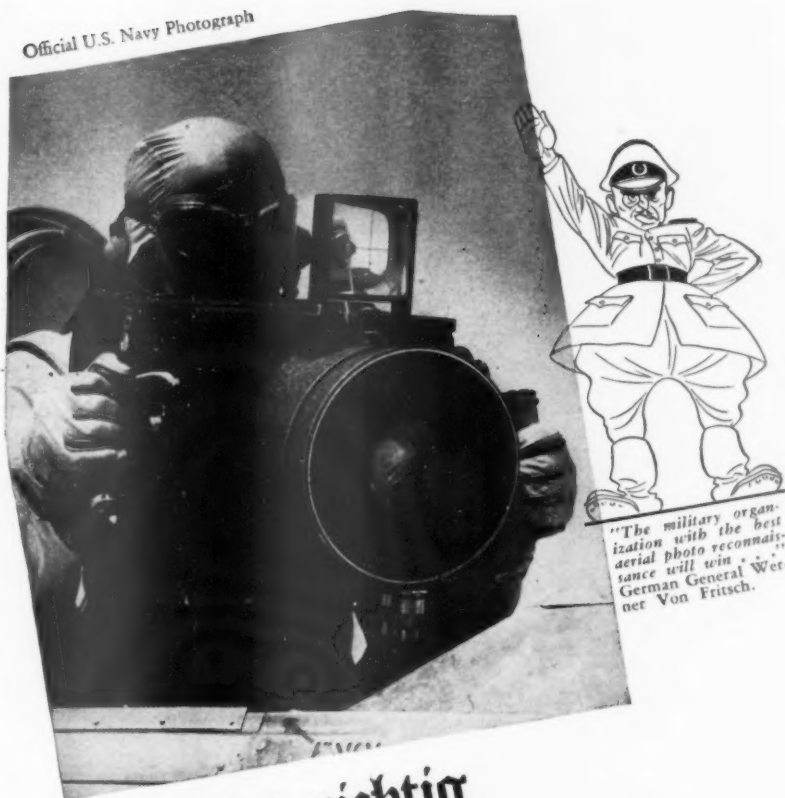
Rationing Scheme—Most elaborate of the distiller checkups has been inaugurated by Baltimore Pure Rye Distilling Corp. in connection with its new brand, "Old Discovery," a blend of bourbon and rye. The company asks retailers to furnish the name and address of every purchaser of the new brand. From this a mailing list is made, and consumers are circularized and invited to participate in a rationing plan. The upshot is that the distiller eventually notifies the consumer that in case of his brand "has been shipped to your retailer today," and gives the consumer a card permitting him to buy one bottle.

This is an ideal time to get retailer cooperation in building up a mailing list. Getting cards filled out and mailed to the supplier might be too much trouble for dealers in some areas; but today a store will do anything for whisky. The cards also give the distiller a check on whether his product has gone to a bona fide consumer. Also most of the systems prevent retailer hoarding because the producers replenish stocks only when consumer cards give them proof of sale.

Similar Technique—Calvert Distillers is using substantially the same technique in order to check up on its Lord Calvert brand, but without the rationing angle.

Chicago's Carter Distilling Co. has adopted a different plan. Carter ration books containing coupons which become valid monthly are issued either through retailers or directly through the company. Dealers receive their first shipments coupon-free, but they

Official U.S. Navy Photograph



"The military organization with the best aerial photo reconnaissance will win." German General Werner Von Fritsch.

Du bist richtig Herr General!

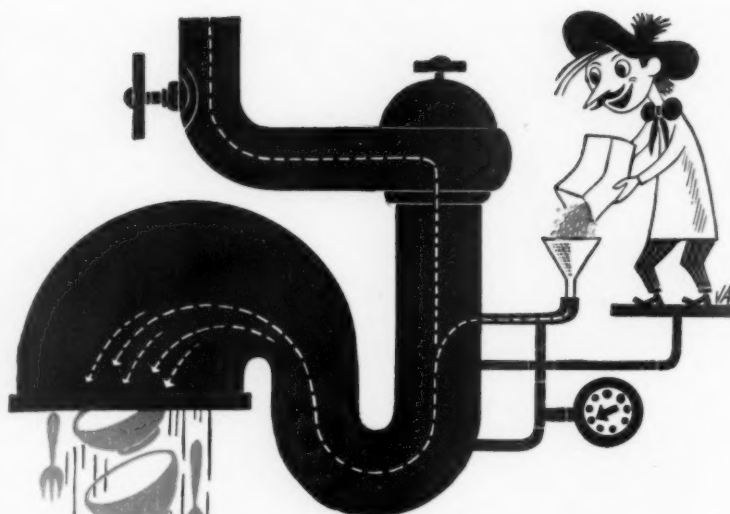
For once a Nazi prophecy is being proved one hundred per cent right. Our flying photographers have the best equipment, the greatest courage and skill—and we are winning the war.

Every time our Navy fliers roar off on a mission, their predetermined objectives have been clearly defined by aerial photographs—many of them made with Todd-built aerial cameras—the EYES OF THE FLEET. Camouflage is penetrated; enemy ships, air fields and ground installations are disclosed with accuracy and clarity far beyond the range of human vision. In reconnaissance, mapping and in recording the results of raids, aerial cameras are indispensable. In the hands of skillful operators they disclose information which assures the success of devastating raids; saves thousands of American lives by reducing enemy ground resistance and speeds our victory.

Aerial cameras bear little resemblance to checkwriting and signing equipment. Yet the thousands we have built and are building have many points in common with our peace-time products—precision workmanship, painstaking attention to every detail, and positive performance. Protectographs, Protectograph Signers and Protod-Greenbac Checks foil unseen enemies—so do Todd-built aerial cameras.



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ROCHESTER 3, N. Y.
OFFICES IN PRINCIPAL CITIES



What your customers will want and how to give it to them

War is a grim business and modern battle dress for men and machines on the home and fighting fronts alike is basically drab and colorless.

But you can bet the last dime of your appropriation for postwar development that products of the first years of peace will be anything but colorless!

You will find people starved for color.

In virtually everything they buy, they are going to want color as never before . . . and one of the best ways you can give it to them is with plastics.



In a product molded from plastics, color goes all the way through.

It never wears thin or grows dim.

Its application is not another separate production operation. It is molded into the product as the product itself is formed.



And with Monsanto Plastics you can literally match any color in the rainbow.

★ ★ ★

The broad and versatile family of Monsanto Plastics includes: Lustron polystyrenes • Monsanto vinyl acetals • Nitron cellulose nitrates • Fibestos cellulose acetates • Opalon cast phenolics • Resinox phenolic compounds and Resimene melamine compounds. Forms in which they are supplied include: Sheets • Rods • Tubes • Molding Compounds • Castings • Industrial Resins • Coating Compounds • Vespak Rigid, Transparent Packaging Materials.

Of the Monsanto thermoplastic, or heat-softening, materials—Lustron, Fibestos, Nitron and the Monsanto vinyl acetals*—all can be had in any color, transparent, translucent or opaque.

Now, with the recent addition of Resimene to the broad and versatile family of Monsanto Plastics, you can even count on getting a heat-resistant Monsanto Plastic in translucent white or soft pastels.



When the time comes to talk color in your postwar products, it will pay you to look closely at the possibilities in plastics.

And you won't find a better place to start looking than Monsanto.

The family of Monsanto Plastics is one of the most colorful offered by any one producer.

Monsanto color laboratories are among the best equipped in industry. MONSANTO CHEMICAL COMPANY, Plastics Division, Springfield, Massachusetts.

*Actually these rubber-like materials can be either thermoplastic or thermosetting, (vulcanizable) depending on their formulation.



buy additional supplies with coupons. Carter is a newcomer in the liquor business, and the plan is an excellent means of building up both dealer and consumer relations, not to mention distribution. The trade press reports that the plan has been a success from point of view of both producer and consumer.

• **Others Investigating**—Schenley and other big distillers have been actively investigating the operations of small producers who have tried ration plans successfully, presumably with the idea of instituting one of their own.

Retailers have not been blind to the possibility of using rationing as a means of currying favor with—and getting more whisky from—the distillers. The favorite allocation method of the package store is to sell liquor to its "regular customers." The first attempt to make dealers feel responsibility for the "regular customer" who has been discontinued by the scarcity failed when dealers temporarily brought Scotch and bourbon out from under the counter only to see it sold to underground operators.

The dealers have given this a second thought. Solutions run all the way from simple to complex.

• **Neighborhood Matter**—The system with perhaps the least paper work consists only of postcards. When a customer asks for whisky, the dealer requests that he leave his name and address, and be notified when supplies arrive. The dealer simply looks at the address if the customer lives within a reasonable distance—hence can be expected to become a "regular customer"—he is notified. Otherwise the potential customer goes thirsty.

• **Patrons Polled**—At the other end of the scale are such highly refined plans as that of Otis & Lee in Chicago. The store surveyed a sample of its 8,500 customers to see whether they preferred a fixed allotment or a percentage plan. The latter was more popular, and Otis & Lee subsequently divided its special account customers into four classifications, put cash customers in a fifth group, and outlined a plan to accommodate all.

Class I customers include those who bought less than \$100 annually; they get one bottle of whisky a month, and an official ration card on which purchases are recorded. Class II and III customers, larger purchasers in the past, are given allotments each month according to the supply, and are given quotas based on average purchases for the group. The quotas of Class IV customers, the really big-scale buyers, are figured individually.

• **Run of the Shelf**—Cash customers are taken care of out of stocks on the shelf when there are any; by the postcard

method when the shelves are bare. But Otis & Lee emphasizes that its postcard is a guarantee.

Systems like this are all too rare according to most distillers, and it is generally concluded in the trade that the bulk of the 20,000 independent package stores do not fall into line upon, the producers will take over.

Nonconformists Are Conspicuous—an all-out effort to persuade liquor stores to give up under-the-counter practices that are giving the industry a bad name has been undertaken by the up-and-coming trade association, Allied Liquor Industries. Allied's plan for ridding the industry of illegal prices, tied sales (you can have the Scotch if you will take three bottles of wine and a fifth of Cuban gin), hoarding, and allowing the goods to reach the black market, looks like a fairly simple public relations technique.

An Allied representative gets retailers to sign a pledge to the consumer not to violate ceiling prices or commit any of the other sins which have prevailed during the liquor shortage. The pledge is published in the local paper with the names of all local signees so that derelicts will be uncomfortably conspicuous by their absence.

Alternatives Are Worse—More pervasive than all this are the alternatives. If independent stores don't toe the mark, says Allied, they face at least three greater evils: (1) local prohibition the dries have won a lot of local options lately because the voters can't get liquor anyhow, so they figure they may as well make it illegal), (2) tighter rationing by distillers, (3) state monopoly.

The third is probably the most effective threat. For independent states have watched monopoly states come up from behind chiefly because of careful rationing systems. The 17 monopoly states were caught shorter than the open states at the beginning of the squeeze, but 14 of them have established workable rationing systems. Thanks to these plans—and in some cases to help from suppliers—the monopoly states are now in a much better inventory position than they were a year ago. More important, they are in a better position than the open states.

Demonstrable Break—Ohio is a case in point. On Jan. 1, 1943, the Ohio Dept. of Liquor Control's inventory was valued at only \$2,357,461. Of the total of 218,477 gal., 100,965 were in domestic and Canadian whiskeys, the rest in brandies, rums, and gins.

As of Mar. 31, 1944, Ohio had 7,441,231 worth of liquor; of the total 87,663 gal., 304,454 gal. were domestic and Canadian whiskeys, 7,358 gal. were Scotch.

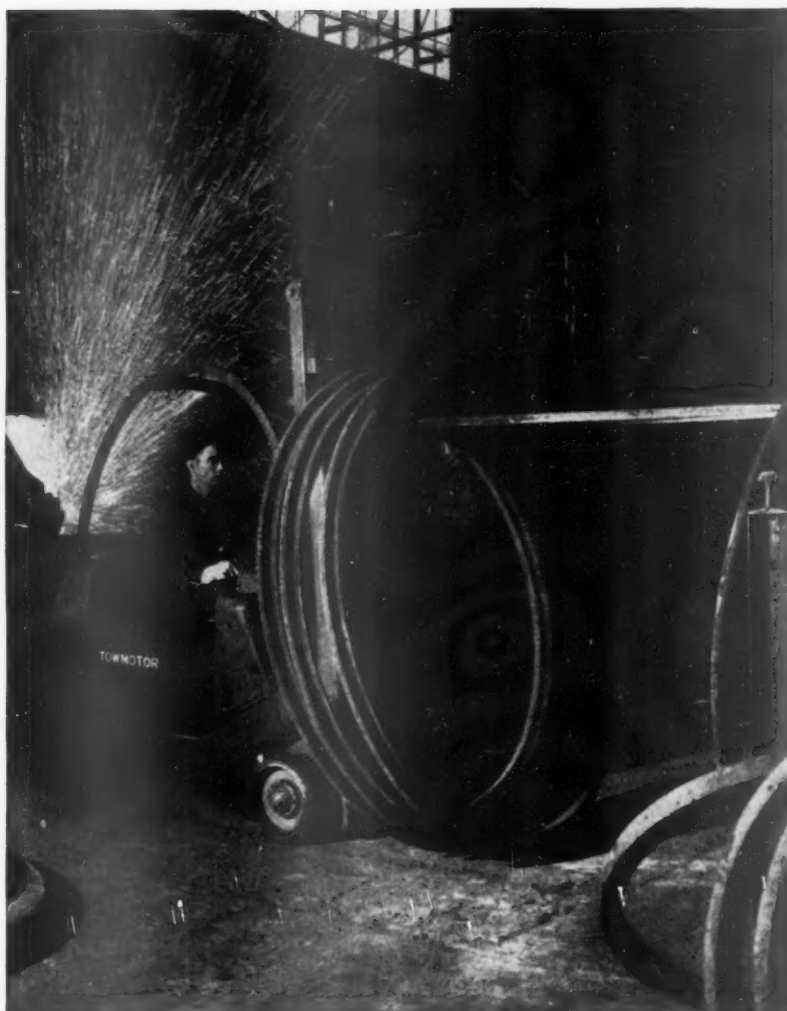


PHOTO BY LINDESMAN-AMERICAN WELDING & MFG. CO.

Handling materials, largest

single labor cost inside plants, accounts

for 22% of industry's payroll. Much manpower is saved

by the efficient use of modern handling equipment,

such as

TOWMOTOR



THE 24-HOUR ONE-MAN-GANG

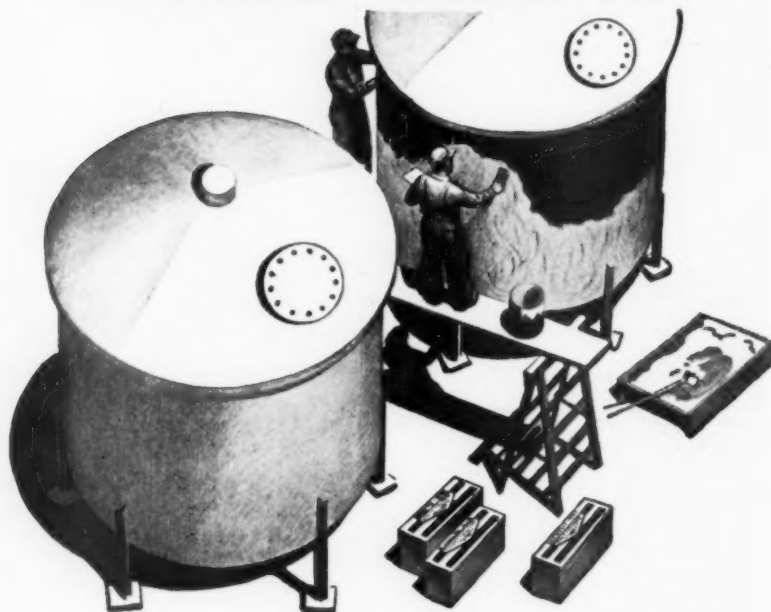
TOWMOTOR CORPORATION • 1221 E. 152ND STREET, CLEVELAND 10, OHIO

STRAIGHT-GAS POWERED INDUSTRIAL TRUCKS EXCLUSIVELY—SINCE 1919

Greater Efficiency & Longer Service with

B-H BLACK ROCKWOOL

INDUSTRIAL INSULATIONS



Extra savings from B-H Insulations will come in handy when post-war competition turns on the heat. And you do get extra savings because B-H Insulations deliver greater efficiency and longer service.

The reason: All B-H insulation products, including blankets, felts, blocks, and cement, are made with a *black* rockwool which has special insulating characteristics. This wool is chemically stable and moisture-resistant. It stands up under extreme service conditions. It has exceptionally low thermal conductivity.

Whatever your insulating problem, it will pay you to consult Baldwin-Hill, because B-H Insulations do a better job—more economically. *Baldwin-Hill Co., 550 Klagg Ave., Trenton 2, New Jersey. Plants in Trenton, N. J., Kalamazoo, Mich., Huntington, Ind.*

MONO-BLOCK

The hot liquid tanks illustrated are being insulated with Mono-block and then given a finishing coat of B-H No. 1 Insulating Cement. Mono-block is a typical B-H product, offering many worthwhile advantages:

HIGH TEMPERATURE PERFORMANCE

Effective up to 1700° F.

MOISTURE RESISTANCE

Will not disintegrate when exposed to humid conditions.

LOW CONDUCTIVITY

Fibres are felted into interwoven layers by an exclusive, patented process.

EASY TO INSTALL

Sufficiently rigid to support its own weight, but absorbs surface irregularities.

Write for our new bulletin on Mono-block

Baldwin-Hill

C O M P A N Y



HEAT & COLD INSULATIONS

Potent Avocado

Marketing cooperative will base promotion of alligator pears in the eastern markets on vitamin research findings.

Having financed research, now completed, into the nutritional properties of the avocado (alligator pear), the Calavo Growers of California await only publication of the findings in a recognized medical journal before advertising that the avocado has nine vitamins instead of five, as previously claimed.

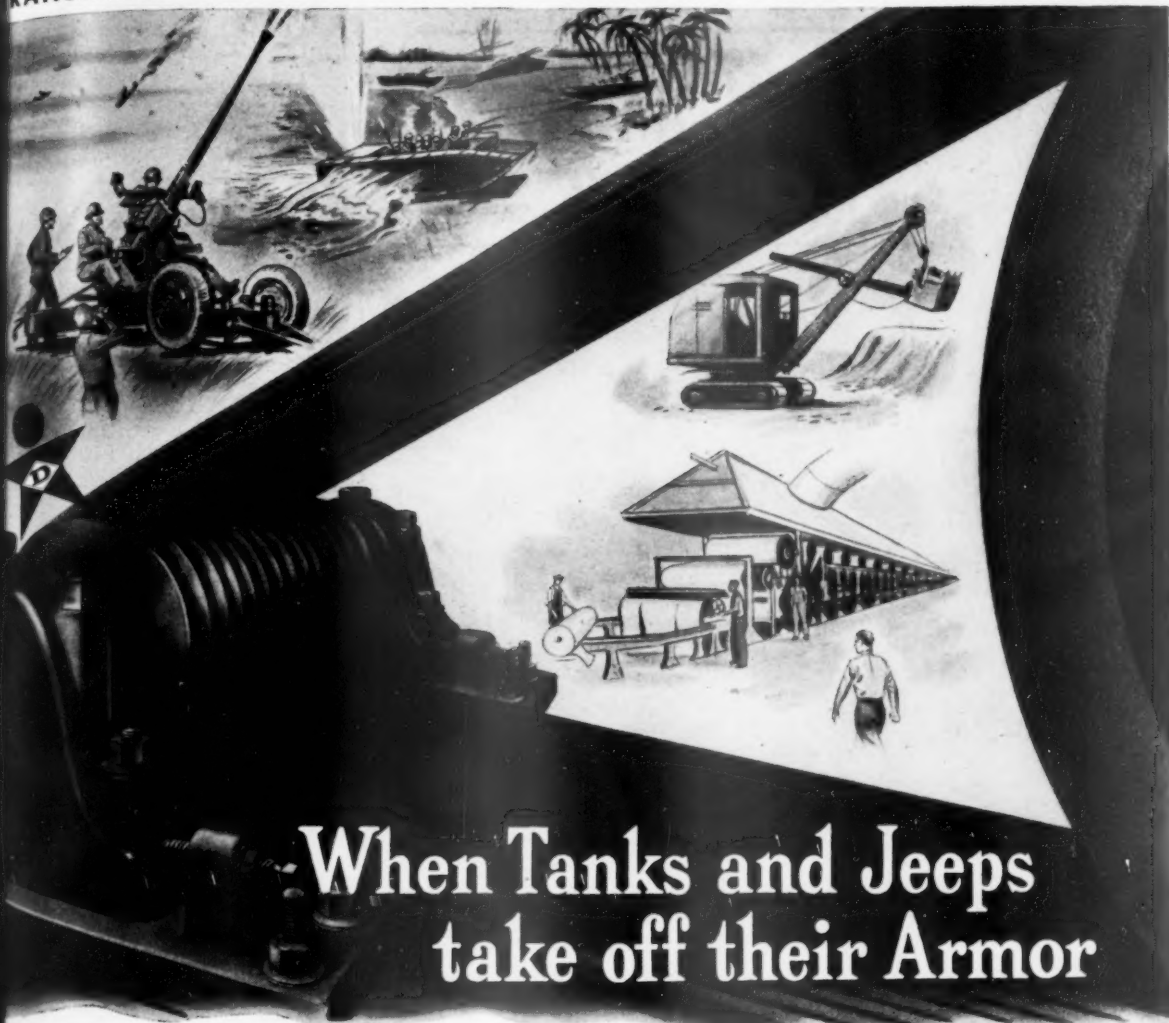
But with or without the nine vitamins, the avocado industry is now in the midst of the biggest season in its history. This year, with some 75% of California production, Calavo Growers will ship some 2,500,000 "flats" (13-lb. boxes) and will spend some \$75,000 to whet the public appetite. • **Insatiable Los Angeles**—Calavo Growers of California, a marketing cooperative, was formed with its eyes on the experience and the mistakes of the California Fruit Growers Exchange, a market and to advertise the avocado.

It started out, of course, to make the rest of the country avocado-conscious. And after 20 years, it still continues this endeavor. But the truth is the



As general manager of the avocado growers' aggressive cooperative for 20 years, George B. Hodgkin has seen the alligator pear rise in popularity and foresees better days ahead.

TRANSMISSIONEERED MEANS ADVANCED DESIGN IN POWER DRIVES



When Tanks and Jeeps take off their Armor

When tanks and jeeps give place to road graders, farm tractors, kitchen equipment, etc., Transmissioneering will be needed to do much more than make up for wear and tear in existing power drives. It will play an essential part in reducing unit production costs in the race to improve competitive positions in the postwar market.

Transmissioneering, the Dodge engineering technique for putting all the power into the job has carried successfully a heavy load in the war effort. First in production costs comes cost of power; second comes cost of delivering that power to the point of use. Transmissioneering

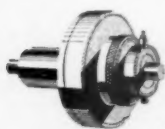
keeps this step under tight control by a thoroughgoing analysis of production requirements . . . by providing a low cost, low power loss, low maintenance transmission system.

All the elements of a complete system of mechanical power transmission are included in the Dodge line of Transmissioneered Power Drives. Call the Dodge Transmissioneer, your local Dodge distributor. He will show you how to put all the power into the job with "The Right Drive for Every Job."

DODGE MANUFACTURING CORPORATION
Mishawaka, Indiana, U. S. A.



Copyright 1944, Dodge Manufacturing Corporation



*The Right Drive
for every Job*



avoca
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has se
popular
ad.

13, 19



**... THANKS, BRIGHT STAR!
MY BATTERIES GOT HERE
ALL SET FOR WALKIE-TALKIE**



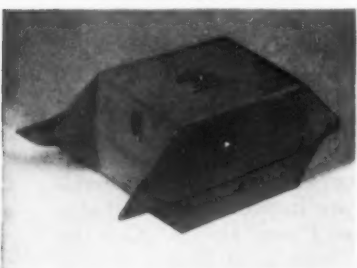
1

The Bright Star Dry Cell Batteries are packed in a strong (corrugated) paper box in the usual way, and the package is placed in the U. S. E. -metal foil bag.



2

The metal foil bag is then heat-sealed—tighter than any drum—and the Bright Star Batteries are set to travel to any scene of action—and be ready for action.



3

The bag's water-vapor-moisture-proofness and ruggedness are made possible by dense Kraft paper, asphaltum compound, solid alloyed lead foil and the heat-sealing transparent film.

Dry cell batteries are the life blood of communication for our Armed Forces everywhere — especially where no other source of power is available. So — *they must get through to all fronts* — through cold and heat and rain and sea water and humidity — ready to spark the voice of Victory.

The Bright Star Battery Company of New Jersey found that ordinary packaging absorbed dampness which knocked their efficient batteries out of commission when it hit the terminals. And *that* meant loss of lives and battles.

They found the answer in the U. S. E. -metal foil heat-sealing bag, which is carrying many other war-vital products through, fit for fighting. This unique product combines lightness, ruggedness, shock protection and absolute water-vapor-moisture-proofness. Its use in battery packaging is illustrated here.

P-20



UNITED STATES ENVELOPE COMPANY
General Offices
SPRINGFIELD 2, MASSACHUSETTS

U*S*E *protective packaging*

Products of United States Envelope Company include WAR PRODUCT PACKAGING • TRANSPARENT CONTAINERS • ENVELOPES • WRITING PAPER • LINWEAVE PAPERS • NOTE BOOKS • PAPER CUPS • TOILET TISSUE • PAPER TOWELS



HELPING THE HOST

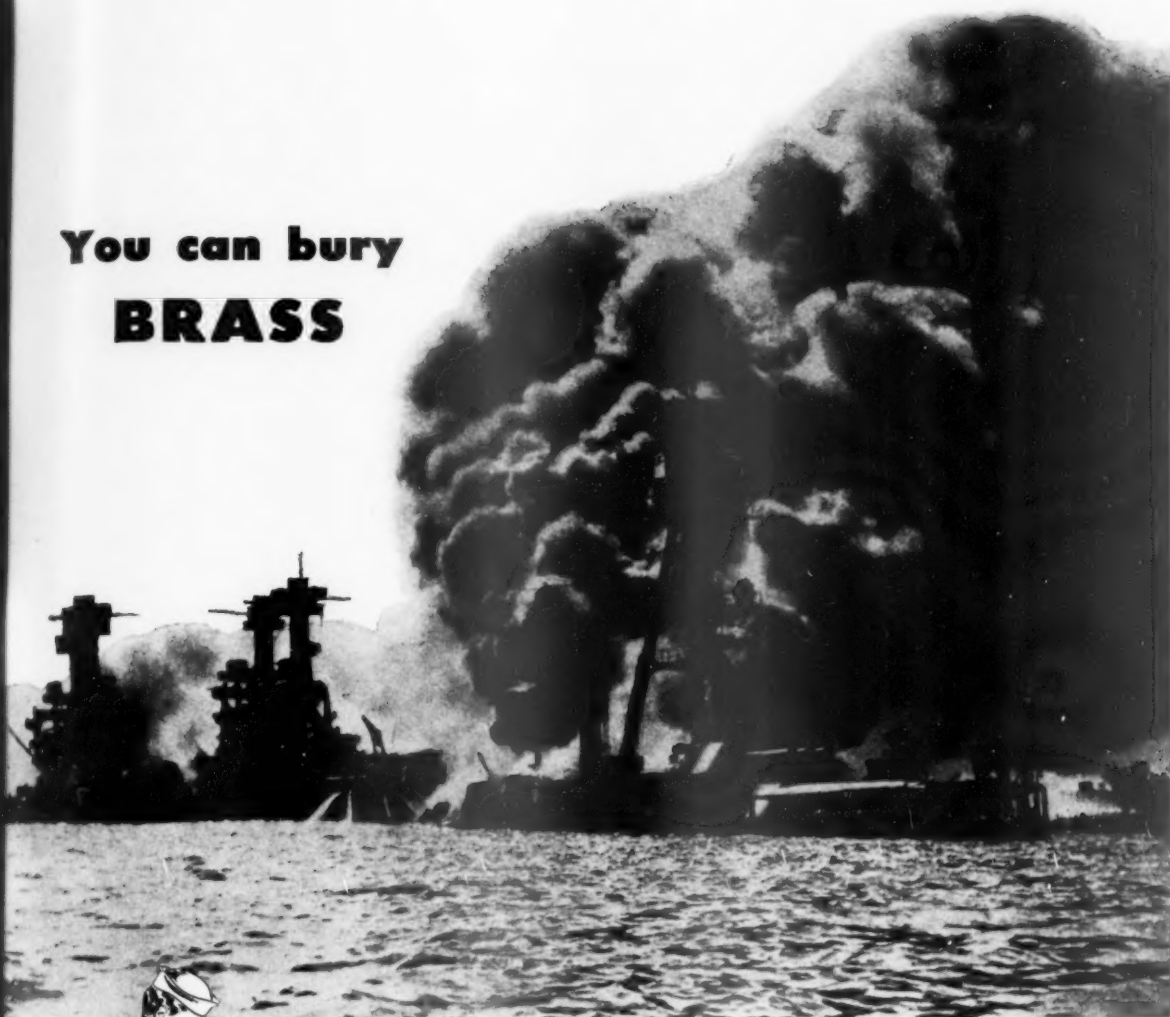
To ease manpower squeezes, many hotels are running with reduced services and with the manual aid of their guests (BW—Jun. 19'43, p. 112). But Manhattan's Gov. Clinton Hotel goes one better by putting its management and other striped-pants employees to work cleaning house and doing part-time maintenance work. Even such permanent guests as Eugene Conner (left), an oil operator, are helping. To him and his neighbors, management of the 1,200-room hostelry sends baskets of fruit or flowers for every day they do their own housework.

throughout the enormous expansion of the industry that has taken place at this time, insatiable Los Angeles has always eaten the lion's share of the fruit. Los Angeles, for instance, consumed about 35 times as many "flats" in the first six months of the present season as Philadelphia and seven times as many as Chicago.

● **Looking Eastward**—It's always been that way. Currently Los Angeles takes about 30% of the total. Other cities of the West and Southwest, including Texas cities, take similarly high amounts, accounting for most of the U. S. consumption. The reason: The avocado is Mexican, and where the Mexicans live they buy it and introduce it to the rest of the community.

But to Calavo Growers this odd fact is the challenge. Promotion will continue this year, as it has been in the

You can bury BRASS



U. S. NAVY PHOTO



... but you can't kill it!

Why work like beavers to raise the shattered, sunken hulks of Pearl Harbor? Two reasons . . . scrap and salvage. And always among the top-most items on the salvage list are the ship's "brightwork," piping, precision instruments, and other costly gear . . . which are Brass in part or entirety.

Unless battle-damaged, this equipment is usually salvageable and *readily renewable* because of this unique characteristic of Naval Brass: No other metal or alloy is so agelessly defiant of the inroads of corrosion. In fact, Brass raised from months or years in a watery grave can be restored with almost magical ease and speed to its former unspotted bril-

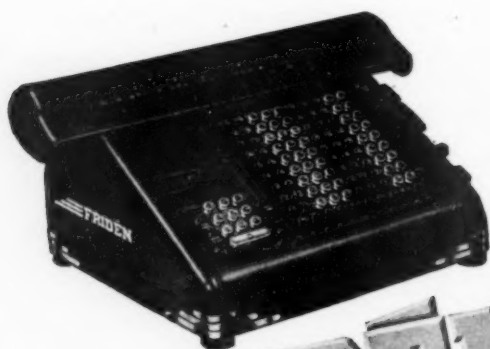
liance. So Brass is a lifelong protector of public funds in the shape of taxes, securities, and war bonds.

Thousands of sea-miles of Naval Brass have rolled from the mills at Bristol since the Spanish-American War. And many more thousands of miles of Bristol Brass sheet, rod, and wire . . . in various alloys for every military purpose from shells to hospital equipment . . . are rolling out now. But one day soon, this golden flow will be diverted back to peacetime products . . . such, perhaps, as *your own* . . . if machinability, "form-ability," corrosion-resistance, and handsome richness of color are factors in your production and marketing plans. At your service, at any time.

The **BRISTOL BRASS** Corporation

Makers of Brass Since 1850 • Bristol, Connecticut

• BUY BONDS TO BUY BRASS FOR BULLETS •



FRIDEN

FULLY AUTOMATIC CALCULATOR

A precision made calculating instrument that is so completely automatic that all mental and physical effort is eliminated from its operation. These fully automatic calculators are the solution of the problem created by the critical shortage of competent clerical help. FRIDEN CALCULATORS are AVAILABLE today, when applications to obtain deliveries have been approved by the War Production Board. Telephone or write your local Friden Representative for complete information.

FRIDEN CALCULATING MACHINE CO., INC.
EXECUTIVE OFFICES AND PLANT SAN LEANDRO, CALIFORNIA, U.S.A.



Have you stopped to check all the uses a plant can make of HEIN-WERNER HYDRAULIC JACKS?

- ✓ lifting heavy loads
- ✓ moving machinery
- ✓ bending rods
- ✓ pressing bushings
- ✓ other applications

Men in factories are finding more and more industrial uses for super-powerful, easy-operating Hein-Werner Hydraulic Jacks. Model 30.11A is illustrated . . . The complete H-W line includes hydraulic jacks of 3, 5, 8, 12, 20 and 30 tons capacity. Ask your industrial supply distributor for details, or write us.



Dual Operation of Two Speed Pumps is an outstanding and exclusive feature of 30 ton model.

HEIN-WERNER MOTOR PARTS CORP. . . Waukesha, Wis.

past, aimed at the appetites in the East.
● **Calavo's Calavo, Inc.**—Men at Calavo have always been proud of their method of introducing the avocado in contrast to the difficulties experienced in introducing the grapefruit.

And one of the reasons the process was smooth was because of Calavo, Inc., a wholly owned marketing subsidiary of the cooperative.

This company distributes the fruit and acts as jobber in the markets of the East. Thus, the avocado grower keeps control of their product one step closer to the consumer than do the citrus growers—with several resulting benefits.

● **The Benefits**—To begin with, Calavo returned to its growers 43% of the consumer's dollar last year, and tends to return fully 50% this year in contrast to 33% for citrus. Moreover Calavo, Inc., puts on special promotion when necessary, whereas jobbers who handle other products do not. Also, because of this setup, Calavo has never resorted to destroying fruit, even though the quantity produced has been highly erratic. In the years of operation Calavo, Inc., has put out the fruit whatever it would bring on the market that cheap fruit would perform no missionary work for the years to come.

● **Avocados and Real Estate**—The factor that is now operating to boost the price of avocado groves to \$4,000 to \$5,000 an acre is that the same steep hillsides most ideally adapted to avocados are also ideal homesites. Add to this the fact that the avocado is found to do best in San Diego County which is in the middle of a fruit wartime boom, and you have the planation for the great turnover groves.

The interconnection between real estate and the avocado business has produced the phenomenon of a subdivider who doubles as avocado grove manager. He sells vacant land but he will plant, cultivate, spray, graft, and pick for the purchaser, if requested. Generally the purchaser builds a house and moves in and then to his own grove. Most fruit is picked by the owners. And groves average only 3½ acres.

BRANDS ARE MULTIPLYING

As those who follow the question well know, grade labeling is never dormant.

It came to life again last week in a report by the National Consumer Tailor Council on a survey made at the request of some consumer affiliates.

The survey revealed that since beginning of the war the number of packers' brands, as distinguished from

LOOK SOUTH
LOOK AHEAD

**THIS
VICTORY GARDEN
WAS PLANTED
AGES AGO!**



DOWN in America's Southland there is a special kind of "Victory Garden" . . . planted by Mother Nature a million years ago.

Today, this productive "garden" is yielding a bumper crop . . . coal, ore, minerals and raw materials of every kind . . . to make arms, ammunition and equipment for America's fighting men.

Tomorrow, when the war is won, trainloads of coal will roll from Southern mines . . . over the Southern Railway . . . to feed fuel-hungry furnaces in post-war factories. Rich iron ore will come out of the earth . . . and speed by rail to roaring steel mills in the South.

Bauxite, clay, phosphate rock, zinc, limestone, lead

. . . all the mineral resources of this great Southland . . . are destined to make mighty contributions to the brighter America that surely lies ahead.

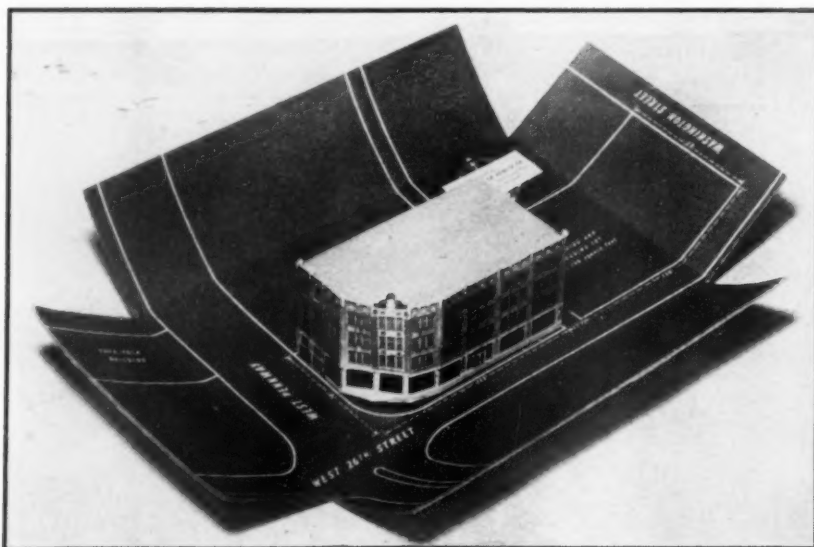
In war, these vital materials are getting the right of way . . . riding on the "fighting freights" that thunder along the Southern Railway System throughout its length and breadth.

In peace, these "Victory crops," planted by Mother Nature ages ago, will continue to roll on the Southern Railway . . . to meet the growing needs of busy Southern industry. *Look ahead . . . Look South!*

Ernest E. Harris
President

SOUTHERN RAILWAY SYSTEM

The Southern Serves the South



PARCEL OF PROPERTY

Stuck with a "difficult" property, Lewis E. Kitchen, Kansas City (Mo.) realtor, transformed apathy into a quick sale by a novel prospectus—a three-dimensional visualization. He had Carter-Owens Advertising Agency make up realistic replicas of Kansas City's Carnie-Goudie building from

photographic prints, and mount them on blueprint site plans cut to form the bottoms and sides of 8x12-in. boxes. Fitted with lids marked "Please keep this side up—there's a four-story building inside," the kits, costing \$1.50 each, were mailed to 250 prospects. One kit went to the right place. The recipient became the new owner for an indicated \$60,000.

chain stores' private brands, had more than doubled in 20 representative chains checked.

More than four times as many packers' brands of tomatoes were stocked; the number of brands of canned peas had almost tripled.

One store carried 30 packers' brands of canned corn and 35 brands of canned peas whereas only five brands of corn and six of peas were carried before the war.

The council's conclusion on such evidence is that with such a variety, brand names do not constitute a reliable buying guide.

Hence consumers argue that the need for grade labeling, widely used now by the chains, is more urgent than ever as a guide to kind and quality in buying new and unknown brands.

PEPSODENT IN COMEBACK

"Amos 'n Andy did it once. Bob Hope did it again." Thus, advertising men give the popular radio comedian the credit behind Pepsodent's claim that it's back in top place in dentifrice sales for the first time in nine years.

But the nation's druggists recognized Pepsodent's saga as one in which the fair trade movement had played the

major role. They recall that back in the thirties the company lost its leadership because it failed to play ball with the advocates of fair trade laws.

Having gained its preeminence through the most extensive advertising in the industry and a tolerance for retail price cutting, the company was loath to fall in line with the new price-maintenance crusade.

Pepsodent, said the druggists, was lackadaisical about issuing minimum price contracts in the few states which then had enacted fair trade laws, and it was lethargic about attempting to enforce contracts. So the druggists sought revenge. A boycott of the dentifrice started in California and spread rapidly.

Pepsodent saw the light, and in 1936 it came to the annual meeting of the National Retail Druggists Assn. with its hat—and a \$25,000 check—in hand. It pledged its support of the fair trade laws and provided funds to back the fight for enactment of more state laws and the federal Miller-Tydings National Enabling Act.

That policy, coupled with continued aggressive advertising, had paid dividends. Last year Pepsodent reported gross profits of \$3,000,000, compared with only \$600,000 six years ago.

Clash Over Seal

Interior Dept., indignant over OPA ceiling price on skins, calls off auction sale to protect Canada's treaty interests.

OPA and the Dept. of Interior's Fish & Wildlife Service were in a huddle last week attempting to reach a solution to the problems which caused the sudden postponement (April 23) of the public auction of 21,742 government-owned Alaskan sealskins.

• **Set 1942 Prices**—With around 20 buyers present from all sections of the U.S., the auction was to have been conducted in St. Louis by the Fouke & Co., processing and selling agent for the government.

It was indefinitely postponed shortly after OPA had announced ceiling prices for Alaskan sealskins as the top price established in the April, 1942, sale (\$45), which represented a rollback of 15% to 20% compared with the prevailing ceilings at the November, 1941, auction (\$53.50). In March, 1943, the price was \$67.

• **Canada Interested**—News of the postponement was given to indignant buyers by Col. Philip B. Fouke, on the eve of the auction. He read a telegram from Oscar Chapman, assistant secretary of Interior. Chapman stated that "circumstances have arisen through no fault of the Dept. of Interior which made the postponement necessary."

Chapman added that the circumstances in part "derive from the fact that unanticipated problems have arisen at a date so late that it is impossible . . . to consult with the Canadian government through the State Department to which this government is obligated concerning the solution of these difficulties."

• **Department Ignored**—While no official clarification was forthcoming, the fur trade interpreted Chapman's message to mean that OPA had lowered the ceiling prices without consulting the Dept. of Interior which controls the wildlife and fisheries.

That action gave the Dept. of Interior no opportunity to consult the Canadian government, which, under treaty has an interest (20% of the U. S. animals or cash profits) in the auction at which the Dept. of Interior, as trustee for Canada under the treaty, was bound to protect.

• **Buyers Protest**—Fifty buyers in St. Louis for the auction promptly protested to OPA and to Secretary of Interior Harold L. Ickes.

The buyers said that OPA had

Seal as a top price for Alaska sealskins, argued that the prices established OPA on Oct. 30, 1943 (\$53 a skin), represented a fair market value and that a lower price would be a grave injustice to the trade, and to the Dept. of Interior, which stood to receive \$130,000 less than it had anticipated for the

Flight of the Trade—With two roll-backs in one year, the fur trade was in a lull. Another reason for uneasiness was that there is some inventory on hand which the trade might take a loss, and it was expressed that the lower ceiling on seal would have a downward influence on the prices of other heavily stocked pelts.

Observers described OPA's action as being designed to reduce the retail prices of finished garments such as women's coats, jackets, and scarfs to approximately fall of 1942 levels.

The fur industry this week was pressing for the fixing of an early date for the postponed auction so that manufacturers could start work soon on next season's garments.

FTC BACKS DOWN

In one of the few major backdowns since it began to get tough, with the enactment of its new law giving it jurisdiction over advertising more than five years ago, the Federal Trade Commission last week "dismissed without prejudice" its four-year-old complaint against Lambert Pharmacal Co.'s Listerine anti-germ.

The original complaint (BW—Aug. 40,p39) charged that the company's advertising misrepresented that dandruff infections and caused by a particular germ, and that the preparation is effective in killing this germ. The complaint was characterized as misrepresentations claiming that Listerine will prevent colds and sore throats, kill all mouth or throat germs, and that it halts food fermentation in the mouth, thus eliminating halitosis or bad breath.

Consumers, to whom Listerine's slogan "When your best friend won't tell you" advertising has long been a bete noir, were disappointed at FTC's dismissal last week. But the commission was careful to state that dismissal without prejudice left FTC free to reopen the case. Meanwhile the commission will be watching and waiting game.

Whether the case is reopened depends largely on how Lambert conducts Listerine advertising in the future. The commission's chairman, Robert E. Carter, pointed out that neither an outright dismissal of the case nor a cease and desist order would settle "the unending medical and scientific controversies."



STOP ERRORS START COST RECORDS RIGHT!

● Bridging the gap between weighing and bookkeeping ...**TOLEDO PRINTWEIGH** gives you indisputably accurate printed records of each weighing operation.

Simple—even with green help, long hours, greater fatigue and wartime speed—**PRINTWEIGH** keeps weight records straight.

Rapid—puts accurate, printed weight records in the operator's hand with *split-second* speed!

Dependable—prints BIG figures...*unmistakably big*... on thick tickets...on large or small sheets...on strips...with extra copies.

Accurate—backed by more than 20 years of Toledo Research and Engineering in weight-printing. Thoroughly proved throughout industry, **Printweigh** is adaptable to scores of weighing operations. Toledo Scale Company, Toledo, Ohio...Sales and Service in 181 cities.

TOLEDO
PRINTWEIGH
SCALES

LABOR

Revolt in Illinois

Lewis lieutenant quits as appointive president and goes back to mines in rebellion over union autonomy.

Into the mouth of the Peabody Coal Co.'s Mine 57 at Springfield, Ill., last week trudged a new employee, his rawness betrayed by the gleam of his untarnished helmet and safety lamp, by the lack of grit under his nails.

To the Peabody Coal Co. this meant only that its manpower supply was infinitesimally improved. To the dust-

streaked miners who clustered around the recruit, it meant something else. It meant a showdown with John L. Lewis over autonomy, a fighting word in the lexicon of the United Mine Workers of America.

• **Stepped Down**—The new employee was Ray Edmundson, who for nine years was the provisional (Lewis-appointed) president of U.M.W. District 12, one of the biggest districts in the sprawling Lewis empire. Rebuffed by the U.M.W. chief in a final plea for district autonomy—for the right to elect district officers, for the right of self-government—Edmundson flung the \$8,000-a-year job in Lewis' face and took a \$1-an-hour job in the mines.

Whatever else lies behind the rup-

ture in relations between Lewis and the man who for years was regarded as one of his most trusted lieutenants, even the "heir apparent"—is largely conjectural. But schism in the United Mine Workers rarely are cut-and-dried affairs, and Edmundson's retirement, coupled with his announced determination to fight for election to the post he resigned, contains the elements of internal ruction comparable with the one which accompanied Lewis' removal of Philip Murray from the United Mine Workers' vice-presidency (BW, 6/42, p14).

• **Autonomy Revocable**—Constitutionally, the districts into which the U.M.W. is divided for administrative purposes are autonomous. But through the years, as outside influences have been brought to bear on district organizations—such influences as communism and dual unionism—Lewis has reserved the right to revoke the autonomy

Mutual Aid: G.I.'s on Furlough, and Labor-Short Industry

Soldiers on furlough, eager to bolster their Army pay with civilian wages, and industry, anxious to plug labor shortage gaps, are getting together. Prime example is North American Aviation's plant at Inglewood, Calif., where 715 G.I.'s helped last week to build Mitchell bombers and Mustang fighters.

Already snowballing among service men, North American's plan was devised by G. S. Honey, plant employment director, who presented it to commanding officers of camps within commuting distance of Inglewood. Last winter the Cleveland Graphite Bronze Co. started to utilize the off-duty hours of military police stationed nearby. After a few days' trial the idea fell apart when

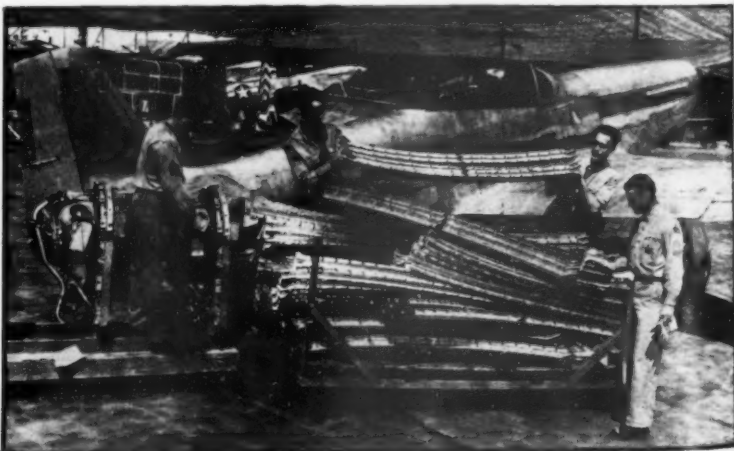
the Army—without explanation—forbade the practice.

Since then the Army has apparently changed its mind. Although the War Dept. does not approve of furloughs for the sole purpose of engaging in nonmilitary work, it nevertheless encourages military personnel to employ as much free time as it wishes in agriculture and essential industry—provided a labor emergency exists, and such work does not interfere with the regular employment of civilians. Commanding officers, however, have the final word.

At North American the soldier goes right to work without physical examination, and gets paid off at prevailing rates—starting at 86¢ an hour for unskilled labor—at the end of

each shift. The average G.I. works about six hours daily, usually picks the night shift. Because he works in his uniform, he chooses jobs that are not messy, preferably those on the loading docks (below, left) or on the assembly lines (below, right). Many of the soldiers are "repeaters," reporting back for work whenever they have the opportunity.

Relations between North American's civilian and military workers are reputed to be excellent. Foremen report that the soldiers are willing employees and that their presence boosts civilian morale. Thus far no problem has arisen over union membership. North American has a contract with the United Aircraft Workers but is not a closed shop.



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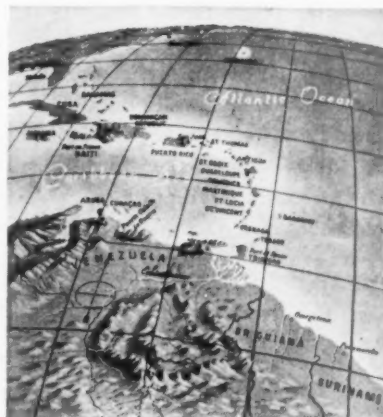
A Postwar Export Market for YOUR Products

WOULD you like to add to your post-war sales a part of the half billion dollars' worth of goods that will be imported annually by the Caribbean islands and nearby South America?

For years the ships of the Alcoa fleet have served this convenient export market. While war continues, their first aim is to serve America's military establishments around the world. But when the war is won, the Alcoa fleet will again resume full shipping to this close-by area—helping American producers and workers expand markets there, and bringing back materials needed here.

In our years of service to the Caribbean and South American area shown on the map at the right we have learned the needs and wants and preferences there . . . the potential volume for products of every type. We know the experienced agents who can be helpful in each community. All of this information is available as an Alcoa service to American business executives . . . to help them prepare plans ahead for greater post-war production and employment.

Address requests for data to Dept. B, Alcoa Steamship Company, Inc., 17 Battery Place, New York 4, N. Y.



Alcoa

ALCOA STEAMSHIP COMPANY, INC.



HATS . . . off to the Tropics!

Old Sol isn't going to be the "undoing" of any American fighting men in the tropics, if first-class tropical equipment can prevent it. Sun helmets are important in tropical areas and must reach destinations undamaged. In their delivery, H & D corrugated shipping boxes are completing another wartime packaging mission—without a hitch.

Every H & D war packaging project is minutely studied by H & D Package Engineers to determine if it holds any features that may assist in bettering the packages you will use when world commerce is again on a peace-time basis. Already the "early birds" of progressive business are getting a line on future packaging requirements; planning and designing now so they won't have to stand in line later.

The files of H & D are crowded with packaging ideas obtained from hundreds of war-time jobs. So, for packages that will protect and promote your products, remember, H & D Package Engineers are ready to help you plan now for your post-war market.

**BUY WAR BONDS TODAY
TOMORROW NEVER COMES**

Tells How To Pack War Materials in Corrugated Boxes

The increasingly important snipping job is to get as much essential material to destination points the fastest, safest and most economical way possible. H & D's Little Packaging Library Booklet, "How to Pack War Materials in Corrugated Shipping Boxes" is filled with valuable information on packaging all types of war materials. For your copy write The Hinde & Dauch Paper Company, Executive Offices, 4461 Decatur Street, Sandusky, Ohio.



FACTORIES in Baltimore • Boston • Buffalo • Chicago • Cleveland • Detroit • Gloucester, N. J. • Hoboken • Kansas City • Lenoir, N. C. • Montreal • Richmond • St. Louis • Sandusky, Ohio • Toronto

For postwar packaging . . . better see **H&D**

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AUTHORITY ON PACKAGING . . . CORRUGATED SHIPPING BOXES

district and appoint provisional officers to function until the hostile influences are neutralized.

For many of the provisional districts however, the hostile influences have been distressingly hardy, and Lewis has been slow in restoring their autonomy. This subject, possibly more than any other, dominates the discussions at the biennial conventions of the international union.

• **Fighting Progressives**—District 12, which embraces all of Illinois, was autonomous until 1933, when the district surrendered its charter to Lewis in a move to consolidate the union forces against the encroachments of the rival Progressive Mine Workers of America. Lewis appointed Edmundson as president in 1935, and Edmundson's tenure was unbroken until his recent revolt.

As a demonstration of their support 44 of Edmundson's Illinois subordinates handed him their resignations, submit to Lewis, and the district executive board urged Lewis to reconsider Edmundson's resignation. For answer Lewis called the board to Washington and handed Edmundson's job to Hugh White, who had been district vice president.

Walter J. James, secretary-treasurer of the district and a close personal friend of Lewis, retained his job despite Edmundson's attempt to fire him.

• **A Waiting Role**—For the time being Edmundson says he expects to remain in the background, to continue working in the mines—waiting, as he puts it, "until Tony speaks," until the rank and file



It's back to the mines for Ray Edmundson (left) who quit his \$8,000-a-year presidency of the mine union District 12 after a quarrel with John L. Lewis over policies in Illinois.

file can mull over the issues and decide on a course of action.

But the retired official's adherents already are steaming up a campaign to reinstate him, this time as an elected president. Leaders of many of the 160 local unions in Illinois have scheduled a meeting in Springfield within the next fortnight to draw up battle plans.

• **They're Forewarned**—Having sat on the sidelines—or even participated on Lewis' side—when the international president had occasion to put down other rebellions, they know the kind of opposition they may face in a no-holds-barred fight.

Edmundson himself was in the front line of the U.M.W.'s battle with the Progressive Miners in the western Kentucky coal field in 1931—a battle studded with bombings and other violence. In 1935, one of the Progressives was slain, and Edmundson was one of many U.M.W. members questioned about it. In 1936, Edmundson was wounded by gunmen firing from a moving car.

• **Fagan Ouster Recalled**—Ringleaders of the Edmundson comeback attempt also are aware that loyalty in the coal fields is a transitory thing when Lewis pours a stream of fixers into the trouble zone. A year and a half ago, Patrick T. Fagan, veteran president of District 5 (Pittsburgh), sided with Phil Murray, his lifelong friend, in the Lewis-Murray feud. Although opposition to Fagan had been fragmentary, he was defeated in his campaign for reelection (BW—Dec.19'42,p92) by Lewis' trouble-shooters.

Because of the encouragement which the Edmundson revolt might afford the other provisional districts, Lewis can't afford to employ anything but stern measures.

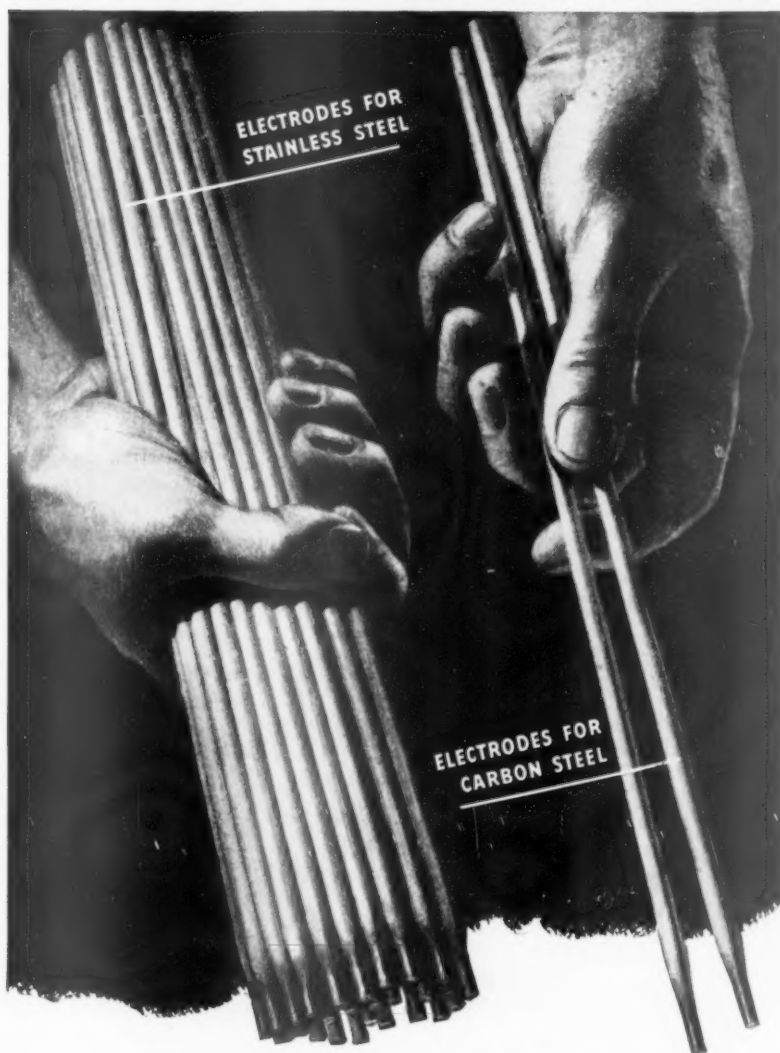
Nor can he overlook the attentiveness of the Progressive Miners, now possessing a charter of affiliation in the A.F.L., to an uprising of the U.M.W. in the Progressives' home state. Only last week the P.M.W.A. fought the application of the Lewis union for readmission to the A.F.L.

TOBIN SQUIRMS OUT

Completing his demonstration of how he does not want an employer to act when the union in the case is his own International Brotherhood of Teamsters, Chauffeurs, Warehousemen & Helpers, the truculent truck drivers' president, Daniel J. Tobin, found an out in his brush with striking mailers who had held up the distribution of Tobin's house organ last week (BW—May6'44,p106).

Unwilling to eat the bitter crow of archrival the eleven striking girls he had fired, Tobin agreed to an arrange-

PAGE STEEL AND WIRE ANSWERS A QUESTION:



WHY DIFFERENT TYPES OF WELDING RODS?

Efficient welding demands that electrodes deposit metal that equals the metal being used. • For ordinary carbon steels, a few types of rods are sufficient, since the analyses are basically the same. Welding Stainless Steel, however, presents a different problem. There are many types of Stainless Steel—developed for hardness, strength, ease of machining or other specific requirements, in addition to corrosion-resistance. PAGE Engineers, in connection with the world's largest manufacturers of Stainless Steel, perfected special electrodes and techniques for welding every specific type of stainless. Hence the many types of stainless steel rods. • There is a correct PAGE electrode for welding either Carbon or Stainless Steels. Keep asking for PAGE electrodes. Like all ACCO products, they are essential in peace and vital in war.



In Business for Your Safety

AMERICAN CHAIN & CABLE COMPANY, INC.

BRIDGEPORT, CONNECTICUT • In Canada—Dominion Chain Company, Ltd. In England—The Parsons Chain Company, Ltd., and British Wire Products, Ltd. • Aircraft Controls, American Cable Wire Rope, Campbell Cutting Machines, Ford Chain Blocks, Hazard Wire Rope, Manley Garage Equipment, Maryland Bolts and Nuts, Owen Springs, Page Fence and Wire, Reading Castings, Reading-Pratt & Cady Valves, Wright Hoists and Cranes.

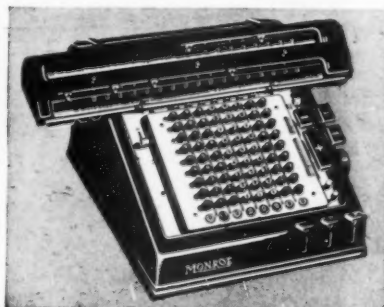
"Isn't it swell to get our work
done so quickly?"



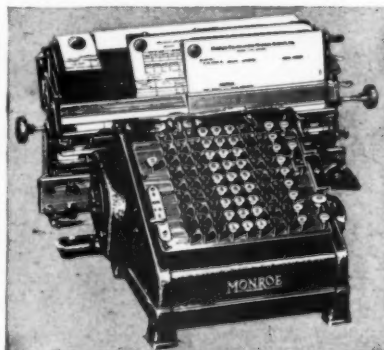
Give them Monroes—and they'll see that your business has the vital figures and records it needs . . . on time, ready when needed, accurate. Loyal workers like these, with the help of Monroe, are performing wonders in this manpower shortage, turning out essential office work that is an important part of America's colossal industrial production.

Payroll calculations and records; statistics; analyses; estimates; reports; invoices; costs and percentages; inventory; posting and accounting procedures—these are the life blood of business. It is upon these that management depends for efficient and economical administration; the job of Monroe is to keep this vital work flowing.

Call the nearby Monroe branch . . . learn from our representative the availability of Monroe Calculating, Listing and Accounting machines under existing conditions. Let his experience aid you in effecting shortcuts and simplifications to make working hours more productive.



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CALCULATING • LISTING • ACCOUNTING MACHINES

ment whereby they would become employees of the printing house which publishes the International Teamster. The paper will be mailed to 450,000 teamster union members from the print shop instead of from Tobin's office.

The girls will retain their membership in the mailers, get \$49 a week under the print shop's union contract as compared with the \$30 a week Tobin paid them.

Union in C. of C.

Los Angeles chamber opens its ranks to independent union after threatened schism. Other independents interested.

With some misgivings, the Los Angeles Chamber of Commerce, never noted as a friend of organized labor, has admitted its first labor union to membership.

The misgivings have been continuous since last June when the enthusiastically independent Cannon Employees Assn. Inc., first broached the suggestion of affiliation to the startled chamber. Perhaps nothing would have come of it had not a couple of members of the chamber's board of directors threatened to pull out if the union were excluded.

● **Against Union "Axis"**—Thus, Richard Franklin, head of the little union (1,500 members), has scored in a manner highly displeasing to the managers of the big unions in Los Angeles, who see no community of interest between unions and business. He has been fighting them for years and refers to them as the "A.F.L.-C.I.O. axis"—sometimes as the "A.F.L.-C.I.O.-NLRB axis."

Franklin is opposed to the American Federation of Labor because of what he terms its fantastic initiation fees, its multiple membership, and its exorbitant dues. He is against the Congress of Industrial Organizations because, he says, it is communist-controlled in Los Angeles.

And he is against them both because of their "heavy use of political favor" when in conflict with such independents as his union, and because their objectives are "always union objectives and not workers' objectives."

● **Continuing Fight**—Standing on these criticisms, Franklin and his membership have fought the big unions whenever they found them—in occasional picket-line skirmishes, in the courts, in National Labor Relations Board elections.

Twice in the past three years the C.I.O. electrical workers have sought elections to dislodge the Cannon Employees Assn. from control of Cannon



It's called "Post-War Dreamitis" ... and it's catching!

IT'S a disease. And the funny thing about it is that you may have caught it and don't even realize the fact.

The symptoms sound more amusing than alarming. The patient thinks about post-war and the house he plans to build. He sees visions of partitions that appear and disappear as he touches a button. Houses that glitter with glass and plastics. Houses that revolve with the sun, where he lolls in comfort not equalled since the days of ancient Rome.

There are at least two alarming things about "Post-War Dreamitis", if you sincerely want to build a house some day soon:

1. You lose time worrying about impractical ideas, when there is no time to spare.
2. You get confused with dream ideas. And if you don't look out, you'll miss entirely the many new improvements in building and in materials that are ready and waiting.

For example, new "floating type" plaster walls and ceilings that reduce room-to-room noise and cut down on repair expense. Fire-

proof gypsum sheathing at no more cost than old-style inflammable sheathing. High efficiency rock-wool insulation that brings year 'round comfort, and pays for itself even in the low-priced home by fuel savings. Washable wall finishes in colors, and noise-reducing materials for rooms where quiet is desired. These are just a few of the products which National Gypsum research has ready for your post-war home... products that can be specified now.

START PLANNING NOW

You should start now if you want to avoid the rush later on. Most authorities predict 1,000,000 new homes a year in the 10 years after the war. So the man who begins planning today has the jump on the market. One of the best ways to begin is by seeing your nearby Gold Bond lumber or building material dealer, or a local contractor or architect. These men know building. They can tell you how to get the house you want and how to finance it up to 70% or 80%.

The main thing to remember is that if you start now—today—with your planning you'll

probably be living in your new house while the man with "Post-War-Dreamitis" will have nothing more tangible than his dreams.

M. H. Baker

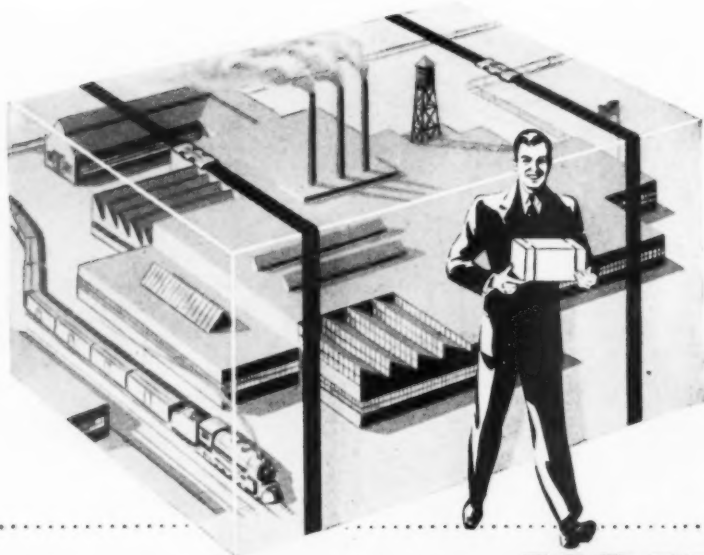
M. H. Baker, President
National Gypsum Company

WAR TO PEACE OVERNIGHT!

That's how quickly the 20 big National Gypsum plants can convert back to peacetime production. These strategically located plants supply over 150 good building products to over 10,000 Gold Bond lumber and building material dealers. Gold Bond research, its plants, and its dealers are important to you when you build. Through them you get the latest and the best in construction materials. National Gypsum Company, Executive Offices, Buffalo, New York.

BUILD BETTER WITH GOLD BOND

Wallboard • Lath • Plaster • Lime • Metal Products • Wallpaint • Insulation • Sound Control



YOUR PACKAGE IS YOU TO YOUR CUSTOMERS

There it is in the shipping room . . . your product ready to represent the results of your ingenuity and skill. You want it to get to its destination ship-shape and sound—upon that condition depends your good will . . . your package is *you* to your customers.

At the end of the production line . . . Acme Steelstrap takes over . . . protects that precious package for shipment by rail, by sea, by truck or by air . . . "Bound to Get There" with Acme Steelstrap.

But Acme protection goes even further. Our advice on properly reinforced shipping packs may reduce weight and waste in container materials, reduce freight charges, prevent pilferage and damage claims . . . savings that pay the slight investment in Acme Steelstrap over and over again.

The list of Acme Steelstrap users reads like a "Blue Book" of American Industry, because these concerns realize their good names are worth protecting all along the shipping line.



DOC. STEELSTRAP is represented by Acme engineers—men whose business is the reinforcement of shipping packs—from single containers to car loads of freight.

Today, on every fighting front, there is evidence of Doc's skill—on cases, cartons and crates, on bales and on skid loads—on material and supplies from Army and Navy

depots, from arsenals and from war industry. Strap has a full-time war assignment, part of a job that Uncle Sam calls "pack it right to reach the fight." . . . It's the same job that we have always called making shipments "Bound to Get There."

When his war work is finished, Doc. will be ready to discuss the possibilities of steel strapping reinforcements for your post-war business.

ACME STEEL CO.
CHICAGO

ACME STEEL COMPANY

2828 ARCHER AVENUE, CHICAGO 8, ILLINOIS

Electric Development Co. employees Violence and charges of company unionism followed the last victory. The violence hospitalized 14 of Franklin's members, but the union came through the official NLRB investigation of the company unionism charge.

• **Others to Join?**—The Cannon Employees Assn. isn't playing a lone hand. It is loosely affiliated with 28 other independent unions in Los Angeles. These total in membership some 18,000 with a sharp awareness of their interdependence.

It is understood that the other independents now will join the Chamber of Commerce, that they have been waiting only for the signal of Cannon's acceptance. Franklin hopes that they thus will be able soon to sit in on policy decisions and be able to elect a labor member of the board of directors.

In addition to local branches of the Mechanics Educational Society of America and the United Brotherhood of Welders, Cutters & Helpers, whose organizational activities in war plants have figured in the news outside Los Angeles, the association of independent unions includes:

Employees Independent Assn. (U. S. Motors), Seven-Up Employees Assn., Independent Bakers Assn., A.S.M. Workers Union (Automatic Screw Machine Co.), Huntington Employees Assn., Sterling Employees Assn., Santa Fe Employees Assn., Krispy Kake Employees Assn., Brass Workers Assn., Independent Architects & Technicians Assn., Pacific Motor Parts Workers Alliance (Thompson Products, Inc.), Angelus Employees Assn., Telephone-Traffic Employees League, Employees Assn., Inc. (Tidewater Oil Co.), Therador Employees Assn., Pacific Cigar Employees Assn., Vard Employees Assn., Owl Employees Club, National Machine Employees Assn., Sparling Employees Assn., Pacific Paper Progressive Club, Allied Employees Assn., Independent Automobile Workers, Inc., Los Angeles Police & Fire Protective League, Wilson Employees Assn., and Barker Employees Club.

BOOSTING "PRESENTEEISM"

Most war industry towns have been battling absenteeism, but Lima, Ohio, has taken the positive approach and launched an elaborate campaign to raise "presenteeism."

Following a publicity barrage sponsored by an emergency committee, some 20,000 war workers (in a town that before the war had a total population of 44,000) signed a pledge in January to be "on the job—on time—every working day" and were given red, white, and blue badges. Each worker signed a card addressed to a soldier from Lima, promising him all-out work on the home front.

At the end of three months, workers having an almost perfect record—attend-

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OFFICIAL O.W.I. PHOTOGRAPH BY DELANO

"GENERALS" in mufti

NAMED after prominent Generals of the past, our hard-fighting tanks are doing an epic job in the war.

American Industry has geared its vast production capacities to building battle-ships and jeeps, tanks, guns, giant bomb-ers and fighters, billions of bullets, shells and bombs.

Whatever the need to speed Victory, American workmen produce the goods. Skillful management makes possible this vast arsenal of war.

However, there is one basic element

demanding in the manufacture of most all war materiel. This vital ingredient is oil . . . fine cutting coolants and other quality lubricants.

And — in war plants all over America — wherever this demand exists — there is a quick, convenient source of Texaco quality lubricants . . . at more than 2300 wholesale supply points.

Available from these same sources are the services of skilled Texaco engineers — to assure the operating efficiency and economy of Texaco quality lubricants.

THE TEXAS COMPANY





Air
IS VITAL

WAYNE Air Compressors are serving in Army Ordnance shops, serving the Air Corps and the Marines in the field, going to the battle-fronts in Convoy Lubers, helping build ships of war and speeding up production in war plants everywhere. Compressed air is the most economical, most flexible and generally useful mechanical means of power application in use today. Relieve man power shortages with more air tools. Ask about Wayne's Auxiliary Unit Plan to amplify present air supply at low cost. Wayne units are available under Government regulations. May we tell you more about them and explain the steps required to secure them? They're backed by Nationwide Service! Write for catalog showing complete line today.



*Buy U. S.
War Bonds*

1/2 H. P. to 10
H. P., 1.5 to 40
cu. ft. per min.
displacement.

**THE WAYNE PUMP COMPANY
FORT WAYNE 4, INDIANA**

Wayne

AIR COMPRESSORS

ance of at least 96.5%—were gold star to adorn the badge.

The committee—composed of industry, and labor leaders—developed a plan to utilize local manpower fully following a War Manpower mission threat last summer to Lima as an acute labor shortage. WMC finally applied the clause in February, before the scheme had a chance to prove itself.

Details of the plan and samples may be obtained from Assn. of Commerce, Cook Tower, Ohio.

New Ship or Old

Squabble over pay for work on vessel in drydock on West Coast brings defiance of NWLB summons to hear

Headed for a showdown parallel to that of the Montgomery Ward case, the strike of the West Coast machinists in the San Francisco shipyards this week had developed to the stage where there could be one of two moves: Either the union had to capitulate and go back to work on the government's terms, or the government had to take over the yards.

• **NWLB Defied**—The field of political parties was thus narrowed when both A.F.L. and C.I.O. locals that had vowed defied a mandatory directive of the National War Labor Board to appear as ordered at Washington hearings, and ignored the appeals of their national leaders for a settlement of the issues.

During the controversy, work on ships in San Francisco drydock where the machinists have for some time been squabbling over wages (BW—Apr. 29 '44, p. 107), and in 12 town machine shops where A.F.L. members refused to work overtime, unions involved were A.F.L.'s International Assn. of Machinists, Lodge 100, and C.I.O.'s United Steelworkers of America, Local 1304.

• **The Issues**—NWLB, which has tried to mediate the disputes when directives of agencies were ignored, on May 2 issued orders which (1) ruled that both the machinists in the East Bay and the machinists in San Francisco should be paid for work performed on vessels in drydock at the rate paid for construction (\$1.20 an hour) plus one-third of the repair job rate (\$1.34 an hour) demanded by them, and (2) upheld the regional board in directing A.F.L. machinists in San Francisco to

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...ions on overtime work in the up-
...shops, pending settlement of a
...and working conditions dispute.
...NLB further ordered officers or
...representatives of the unions to appear
...Washington May 6 to show cause
...they should not be subject to
...ities under the War Labor Disputes
...if orders were not complied with.
...dy appeared. It was then that
...LB threatened government seizure
...the shipyards.

Allows Recommendation—In ruling
...st the machinists' demand for the
...er rate on drydock work, NWLB
...on recommendations of the Pa-
...Coast Joint Committee for Ship-
...ing & Ship Repair, headed by
...Adm. John W. Greenslade. Both
...gement and labor agreed, in the
...Coast Stabilization Agreement
...1942, that the work in question
...ld be performed at new construc-
...rates.

...the time, this spring, when the
...te flared into a national issue,
...inists were refusing to work on a
...net tender and a Maritime Com-
...on cargo vessel, which needed final
...tment, at the NWLB approved rate
...20 an hour. Last week a new C-2
...transport finally was removed
...drydock after union men had re-
...d to give it a final checkup unless
...were paid the repair rate. Accord-
...to a Navy spokesman, the vessel
...et go to sea until the checkup
...ade.

Ordered Back—This dispute is on the
...da of the Pacific Coast Shipbuild-
...Conference now in session in Port-
...y direct... Ore., and NWLB's shipbuilding
...mission has been assigned to inves-
...e and recommend any further
...n.

...turning that seizure of the ship-
...was "inevitable under present cir-
...stances," Philip Murray, C.I.O.
...dent, this week wired Local 1304,
...g the machinists to return to work.
...ey W. Brown, president of I.A.M.,
...ordered members of Lodge 68 to
..."defying" the government.

Will Appear—Leaders of both the
...orkers' union and I.A.M. finally
...ared in Washington last Wednes-
...E. F. Dillon, I.A.M. business
...t stated that the subpoena which
...ht him to Washington on the
...ime dispute was the first notice
...ad received to appear.

...e described himself and Harry
...t, another business agent of the
...who was also subpoenaed, as "law-
...ing citizens," and added that he
...ht they would get "a fair shake"
...Washington.

Another Defiance—A collateral case
...NLB defiance concerned the same
... local. Machinists in uptown



WE DON'T PULL CLARE RELAYS OUT OF A HAT

There is no magic in the way Clare "Custom-Built" Relays perform. They are manufactured to operate perfectly in the job for which they are designed. This is the basic principle of "custom-building." Years of "know how" have given Clare engineers an exact understanding of *what* you must have in your relay and *how* to build it for you.

Precise design and manufacture, the use of the finest materials available, and fine adjustment are vitally important in "custom-building" Clare Relays. Our engineers are never satisfied until every part of every relay is as carefully selected and precisely fitted as the parts of a fine watch.

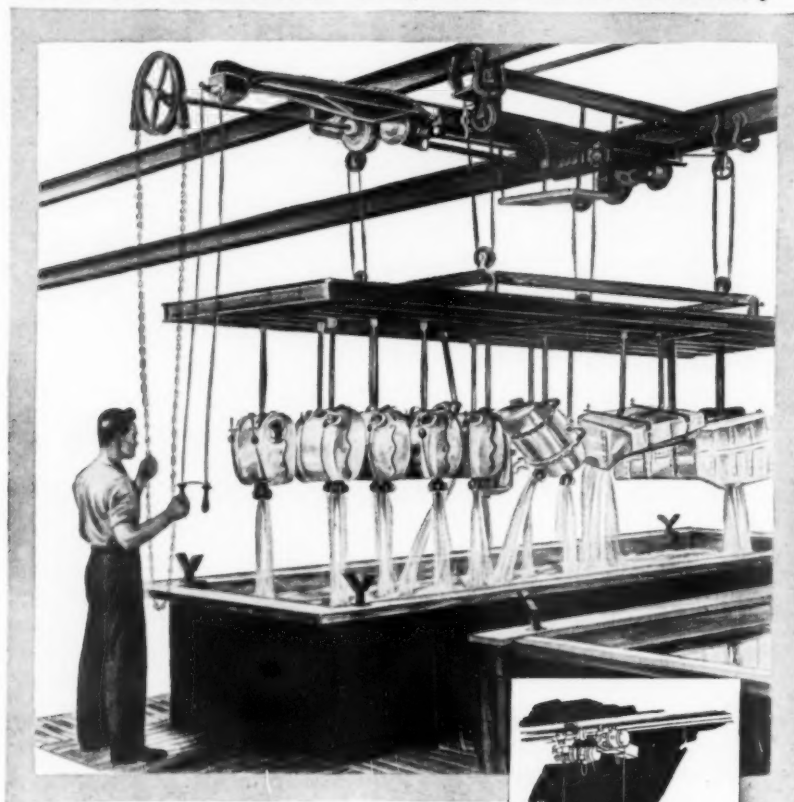
Added to these factors is the flexibility of application made possible by "custom-building." Clare Relays can be supplied with various types of mountings; with contacts of rare metals or special alloys in a wide range of sizes, ratings and forms; with coil windings to match the circuit and application; with contact closure sequence and desired contact pressures to meet the requirements of your specifications.

If you have a design problem which the ordinary relay will not solve, send us a print showing your requirements and let our engineers "custom-build" the relay you need. Ask for the Clare catalog and data book. C. P. Clare & Co., 4719 Sunnyside Avenue, Chicago (30), Illinois. Sales engineers in all principal cities. Cable address: CLARELAY.

CLARE RELAYS

"CUSTOM-BUILT" Multiple Contact Relays for Electrical, Electronic and Industrial Use

Today's Production Needs! Tomorrow's Reconversion!



HOW TWO PROBLEMS FIND A SINGLE ANSWER

Where war-jammed factories could not find manpower, Louden Overhead Handling readily supplied its equivalent. Where government procurement demanded still more production, Louden simplified and accelerated assembly operations . . . allowed workers more time at machines and machines more time at work. Where harried engineers could not find needed plant space, Louden moved materials handling and traffic to the ceiling with results little short of miraculous. Where Louden serves today . . . will be the scene of rapid reconversion and plant rearrangement tomorrow. It is not too late to meet the needs of today and the demands of tomorrow with flexible, adaptable Louden Overhead Handling . . . not too late to write for the Louden book and learn this single answer to your double problem. But write today. . . THE LOUDEN MACHINERY CO., 5219 W. Superior Ave., Fairfield, Iowa.

Louden's Amazing New Dial Operated Automatic Dispatch System

Carries any load to any station in any department. Makes any desired stops in any desired sequence over any chosen route. Detours any approaching load, switches, reverses and returns to point of origin. All automatically, without attendants, on a simple setting of the control dial. A tremendous step closer to completely mechanized operations.

Other Louden equipment includes simple hand-operated carriers and hoists, power-operated units, cab-operated hoists, cranes and carriers, gantry cranes, process-handling equipment, etc. To fit any need from a small room up to a completely unified, comprehensive and universal plant-serving handling system. From truck or gondola car at receiving door to finished and crated product out the shipping door, by way of baths, ovens, spraying booths, drying ovens, weighing scales, etc. Flexible, adaptable, easily and quickly modified and rearranged to fit changing needs.



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Untangle Men, Machines, Manufacturing and Material Handling

shops had a contract with the Car Metal Trades Assn. which expired March 31. While renewal negotiations were under way, the union refused to work more than 48 hours a week because the association would not agree to retroactive wage adjustments.

NWLB received the dispute when the regional board's orders were to continue work under terms and conditions of the old contract (including 52- to 60-hour week), pending settlement of the wage and working conditions.

Detroit Loses

WMC imposes a manpower ceiling as motor city's labor-management groups fail to accept government controls.

Detroit's management and labor groups, both powerful, lost a big battle last week end in their long fight against government controls over manpower (BW-Nov.27'43,p102). The fight took the form of a War Manpower Commission regulation imposing power ceilings covering employment of some 800,000 workers in 1,000 essential and nonessential establishments. WMC was backed up by the War Relocation Board and the armed services.

• **Shortage Indicated**—The government groups approved the action, which covered male workers only, on the grounds that manpower forecasts indicated a possible shortage of 28,900 men in September. Important, too, was the fact that the ceiling regulation was designed to plug holes discovered in the operation of the production urgency committee, establishment of which last year (BW-Oct.16'43,p98) was expected to stave off tighter manpower controls.

The committee was formed to review contracts before their award in terms of manpower availability. It had authority to study only prime contracts. Much of Detroit's business is on subcontracts.

• **Can Control Contracts**—Also, the services steered contracts to Michigan, they did so because they saw other places had the know-how. Urgency committee contract rejections, therefore, were simply overridden on grounds of necessity.

Now, WMC can control contract awards by limiting plant payroll. Thus the urgency committee holds covered.

State WMC director Edward Cushman backed up his claims of



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shortages by pointing to 30,000 openings in U. S. Employment Service files in Detroit today. Of these, 5,500 are priority jobs, indicating that they are in urgent need of filling for work certified imperative by Army and Navy officers.

• **Base Period Set**—The Detroit regulation is like most of the 40-odd others; more inclusive than some, it controls employment in tool, die, machine, and pattern shops with as few as eight persons.

The base period for them and others is May 1. By May 15, employers of 200 or more must stop replacing labor losses until they reduce to 97% of the May 1 figure, and as of July 1 they cannot hire until a 95% level is reached. The comparable dates for employers of 50 or more are July 1 and Aug. 1. Those employing less than 50

can maintain that total hence
• **Veterans Excepted**—Detroit's Motive Council and United Workers Union had opposed ceilings, not only as unnecessary also as too inflexible. Some have salvaged on the dissidents by exempting handicapped workers, part-timers, students, and construction and transportation employees. Returned veterans go on any payroll in Michigan, but next man lost to the working force considered as having been replaced the vet.

Increases above the indicated totals will be permitted on application to WMC, in cases of urgent need to meet schedules or fill essential needs. Employers with several establishments can split their manpower as they see fit.
• **Had Their Chance**—Unspoken WMC's announcement of the plan

Many Cities Placed on 48-Hour Week

The 48-hour-week regulation apparently is one War Manpower Commission ruling that really is working.

A total of 136 urban areas (actually 169 cities) have been placed on the 48-hour work-week by WMC order. Two additional cities, Cincinnati (in Group 3) and Marion, Ohio (in Group 1), are slated to go on the longer work-week June 1.

Under WMC rules, all Group 1—acute labor shortage area—cities supposedly go on the 48-hour week automatically; Group 2—stringent labor shortage area—cities are encouraged to adopt the longer week; Group 3—

easy areas—may if they want.

Actually, all but two of the Group 1 cities have been placed on the 48-hour week. The exceptions are Eureka, Calif., and Tacoma, Wash. Ten Group 3 areas and five with labor problems are so slight that they have not even been classified, also with 56 in Group 2, also are on the longer work-week.

The list of urban areas already on a 48-hour week, by WMC region, follows with the area classification, 1, 2, or 3, indicating degree of labor stringency—shown in parentheses preceding the city names:

Region I

(1) Hartford, Meriden, New Britain-Bristol, Waterbury, Conn.; New Bedford, Mass.; Newport, R. I.; Portland-Biddeford-Sanford, Me.; (2) Bath, Me.; Boston-Quincy-Hingham, Springfield-Holyoke-Northampton, Mass.; Bridgeport, Conn.; Portsmouth, N. H.

Region II

(1) Buffalo-Niagara Falls, N. Y.; (2) Massena, N. Y.; (3) Utica-Rome, N. Y.

Region III

(1) Plainfield-Somerville, N. J.; (2) Allentown, Chambersburg, Pa.; Newark, Paterson, Perth Amboy, Trenton, N. J.; Wilmington, Del.

Region IV

(1) Baltimore, Elkton, Md.; Hampton Roads, Petersburg, Richmond, Va.; Washington, D. C.; Wilmington, N. C.; (2) Burlington, Charlotte, Elizabeth City, New Bern, N. C.; Front Royal-Winchester, Va.; (Unclassified), Spruce Pine, N. C.

Region V

(1) Adrian, Benton Harbor, Detroit, Muskegon, Mich.; (2) Akron, Cleveland, Lima, Ohio; Battle Creek, Kalamazoo, Monroe, Owosso, Pontiac, Port Huron, Saginaw City, Mich.; Canton-Massillon-Alliance, Columbus, Dayton-Springfield, Fremont-Port Clinton, Lorain-Elyria, Mansfield, Piqua-Sidney-Troy, Toledo, Ohio; Louisville, Ky.; Youngstown-Warren-Sharon, Ohio-Pa.; (3) Newark, Ohio; (Unclassified) Salem, Ohio.

Region VI

(1) Anderson, Ft. Wayne, Logansport, Michi-

gan City-LaPorte, Muncie, Richmond, S. Bend, Ind.; Aurora-Elgin, Chicago, Chicago Heights-Harvey, Dekalb, Moline, Rockford, Springfield-Decatur, Sterling, Waukegan, Gary-Hammond-S. Chicago, Ind.-Ill.; Racine-Sturgeon Bay, Wis.; (2) Connersville, Indianapolis, Kokomo, Marion, Newcastle, La. Kenosha, Manitowoc, Milwaukee, Wis.; Freeport, Ill.; Evansville, Lafayette, Ind.

Region VII

(1) Brunswick, Columbus, Macon, Ga.; Charleston, S. C.; Knoxville, Tenn.; Mobile, Ala.; Panama City, Fla.; Pascagoula, Miss.; (2) Biloxi-Gulfport, Miss.; Jacksonville, Fla.; Tallahassee, Fla.; Savannah, Ga.; Atlanta, Ga.; Spartanburg, S. C.

Region VIII

(1) Clinton, Newton, Iowa; Hastings, Neb.

Region IX

(1) Oklahoma City, Okla.; Pine Bluff, Ark.; Wichita, Kan.

Region X

(1) Beaumont, Tex.; (2) Galveston, Tex.; (3) Dallas, Tex.

Region XI

(1) Cheyenne, Wyo.; Ogden, Tooele, Utah; (2) Provo, Utah; (3) Butte, Mont.; Lake City, Utah; (Unclassified) Price, Mo.; Panguitch, Utah; Rock Springs, Wyo.

Region XII

(1) Las Vegas, Nev.; Los Angeles, S. Francisco Bay, Santa Ana, Ventura-Oxnard, Calif.; Portland, Ore.-Vancouver, Wash.; Seattle-Bremerton, Wash.; (2) Everett, Wash.; Reno, Nev.; San Bernardino-Riverside, Cal.

hence feeling that labor and industry had been given a full chance before government controls were imposed. First the production urgency committee, which proved to have flaws. Then an employment stabilization plan to bolster the urgency committee. Simultaneously, Detroit labor and management interests joined hands in the Detroit Victory Council, whose efforts to stir up citizen interest in job fighting in war plants aroused little interest. WMC's stand evidently is that these moves have still left deficits in the manpower projections, and that cautionary action must be taken now.

WMC Has Last Word—Labor and management answer that the projections have always shown deficits, and they have got along well up to now. WMC counters that critical schedules are behind production in Detroit right now because of manpower shortages—and to that one has come no answer as yet.

Sh Aren't Fowl

Proposal to assign junior executives to part-time jobs in shops is turned down by regional labor board as inflationary.

A proposal by the Cleveland Graphite Co. to bolster its manpower supply by detailing junior executives to part-time manual jobs in the shop was turned down this week as inflationary by the Cleveland Regional War Labor Board. Variation of it now has been submitted hopefully to the Wages & Hours Division of the U. S. Dept. of Labor.

60-Hour Week—The plan had been met with enthusiasm by William B. Edmunds, area director of the War Manpower Commission. In brief, it was proposed that about 50 junior executives work 48 hours weekly in the factory, 12 hours at their desks.

For the two-hour daily administrative stint, one-fourth of their current schedule, they were to receive one-third their present salaries, thus compensating for the speedup in cleaning off their desks. For the factory work they would get the hourly rate attached to the job. Roy Suter, stabilization director of the regional board, said the scheme would increase their total take-home pay and would amount to receiving compensation as executives for time at manual jobs.

Not Good Economics—"The company had suggested that women employees be upgraded to do the detail work formerly done by the juniors in

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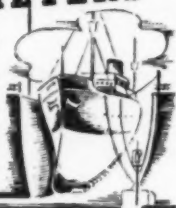


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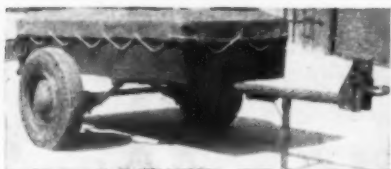
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the planning, personnel, engineering, and other departments. Most of the 50 involved had tool room, machine, or other experience gained before promotion. Suter's reasoning was that if the 50 took part of their executive pay for shop work, other workers might feel entitled to the same rate, "which is not good economics."

Graphite Bronze is 400 workers short of the number needed and expects to lose an additional 600 to the armed forces in the next six months. Last winter the company employed, three nights a week, a score of military police from a battalion then stationed in Cleveland. The Army ordered this halted.

• **The New Plan**—Under the plan submitted to the Wages & Hours Division, the junior executives would be employed eight hours a day in the shops at regular rates, and the division would establish their status under the Walsh-Healey and Fair Labor Standards acts, setting compensation for such time as they devote to executive duties.

Wage Floor Wider

Setting of minimum pay in three industry groups leaves only three more to be covered; deadline is 19 months away.

With high war-wage levels providing a favorable climate, the Labor Dept.'s Wage-Hour Division is winding up ahead of schedule its job of putting industry on the 40¢-an-hour minimum wage (BW—Nov. 6 '43, p90).

• **New Orders Issued**—The three latest wage orders, issued Mar. 20, cover 1,500,000 workers in three groups, but only an estimated 75,000 of these were getting paid less than 40¢. The groups were: (1) meat and poultry; 450,000 employees, of whom 50,000 were getting less than 40¢ an hour; (2) bakery, beverage, and miscellaneous food industries; 300,000 employees, of whom 15,000 are directly affected; (3) metal ore, petroleum, and natural gas; 750,000 covered, of whom 10,000 have been making under the minimum.

• **Three More Coming**—Wage orders covering the remaining three groups of workers not yet brought under the law's provision are in the red-tape stage, from which they may emerge any day.

They are: (1) fruit and vegetable packing; 150,000 covered, 10,000 affected; (2) finance, insurance, real estate, motion pictures; 1,250,000 covered, 60,000 affected; (3) communications, utilities, and miscellaneous transportation industries; 900,000 covered, 50,000 affected.



WORKERS VS. VETERANS

War workers may soon vie with veterans in politics. Lending credence to such a trend is the success of 63-year-old George W. Olsen, who learned last week that he won the Democratic gubernatorial nomination in Nebraska by 374 votes. A veteran campaigner, Olsen devotes spare time from his war job working on theory for squaring the circle. His opponent is Republican Gov. Dan Griswold who is seeking a third term.

The \$16-a-week minimum—for a four-hour week at 40¢ an hour—covers workers engaged in interstate commerce who normally would not become compulsory until Oct. 24, 1945, under the Labor Standards Act of 1938, but industry committees, whose decisions govern the extension of the coverage, have been able to anticipate the requirements. Current employment high wages have made the stepup from 30¢ to the 40¢ level much easier than was the jump to the 25¢ floor when the law was passed in 1938.

• **A Policing Job**—When the three remaining groups of workers are raised to the minimum wage rate, the Wage-Hour Division can concentrate on policing. In the nine months ended April 30, 1943, wage-hour inspectors (there were 625 last year but the number is down to 625 now) found violations that resulted in restitution of \$12,863,000 to 404 workers. During the fiscal year ended June 30, 1943, some \$17,000,000 to 390,000 workers was paid out by employers.

This sort of policing will be stepped up this year under a budget of \$3,000,000 compared with \$4,000,000 last year and \$5,151,000 the year before.

THE WAR AND BUSINESS ABROAD

BUSINESS WEEK

13, 1944



In the midst of concentrated activity along the English Channel, the fury of the latest Allied air attacks, and the pounding of Hitler's coastal defenses, **don't lose sight of important postinvasion projects that are being planned now, down to the last detail.**

•
Conversations are now under way in Washington between military men, WPB officials, and transportation experts on the problems of restoring rail tracks in western Europe as closely as possible on the heels of the invading armies.

Besides the destruction which the railroads in western Europe have suffered from Allied bombings, the Germans are reported to have pulled up nearly 20,000 miles of rails in France and sent them to the eastern front.

Problem now is to have adequate supplies of rails and emergency rolling stock on hand to carry out repairs on a scale commensurate with the immediate demands of the liberating armies.

•
If Allied blitz tactics work as well as is expected, **early demand for a few key commodities is bound to create a squeeze on world markets unless buying is rigidly controlled.**

Look for an immediate run on coffee, and, a little later, on wool and cotton. Coffee-drinking Sweden is well stocked with cash to go after large shipments of coffee-beans, and Norway, Holland, Belgium, and France have all been buying food supplies through governments-in-exile.

First relief supplies will include finished clothing, but the scheme of the relief agencies is, as quickly as possible, to supply cloth for fabrication in local factories, and later raw materials to be utilized in reconditioned textile mills.

•
South America's coffee crop this year is estimated at 23,000,000 bags—not enough to cover world demand if all of Europe is liberated in 1944.

This means an inevitable bidding up of prices unless London and Washington have agreed on a price ceiling which they are willing to enforce through their control of shipping.

•
France can count on large supplies of wheat, vegetables, fruit, and meat from North Africa. Since the liberation of the French African colonies more than a year ago, Allied and French farm experts have planned production to meet requirements on the Continent after the invasion.

A quick Allied victory in France might even come in time to save the harvest from Nazi scorching, and to allow a second crop of quick-growing vegetables.

•
The arrival in London of official representatives of the Yugoslav forces of Marshal Tito (BW—Apr. 29'44, p113) suggests that arms are going to be supplied to the guerrillas in greatly increased quantities and that **Tito's 250,000 troops may soon become a vastly more potent threat to Hitler than in the past.**

•
Don't miss the significance of the clear, concise statement of Soviet-Czech relations during the period of Czechoslovakian liberation.

It is in striking contrast with the lack of any specific Anglo-American pacts with the countries of western Europe—particularly France. This fact is not overlooked by many critics of Washington's vague handling of foreign policy.

Jan Masaryk, Czech foreign minister, defends the Soviet deal tersely:

THE WAR AND BUSINESS ABROAD (Continued)

BUSINESS WEEK

MAY 13, 1944

"Some pussy-footing ostriches criticize the treaty between Soviet Russia and Czechoslovakia. Our close collaboration with Soviet Russia needs no explanation. **We do not want anything from the Russians except protection from the Germans, and the Russians want nothing whatsoever from us.**"

As was to be expected, Czechoslovakia will pattern certain postwar plans on Soviet models (BW—Jan. 22'44, p104).

Dr. Benes declared recently in London that the first government in liberated Czechoslovakia will be one of national unity, **committed to a five-year plan of reforms** which are being written now.

More spectacular is the Benes proposal to the Czechoslovak government-in-exile that it adopt a policy for nationalizing all large industries when the country is liberated and normal political life has been restored.

Small industries will be returned to their original owners. Like other exile governments, the Czechs are keeping an elaborate account of all property transfers ordered by the Germans or by local agents of the Germans, and have declared all enforced transfers void.

Worrisome problem behind the nationalization program is what to do with major stockholders who have obtained new citizenship during the war, some of them in the U. S.

Fear of the Czech officials is that they will find themselves in the position of expropriating the possessions of citizens of friendly and allied powers. The plan, nevertheless, will be carried through.

On what terms expropriated shareholders in the industries to be nationalized will be paid is another problem.

The wartime inflation in Czechoslovakia has pushed share prices to record levels.

Between Mar. 1, 1940, and Dec. 31, 1942, the price of Bohemia Sugar Co. shares on the Prague Bourse jumped from 1,615 to 7,000 crowns, while Western Bohemian Kaolin & Fire Brick Co. shares jumped from 6,160 to 21,800 crowns. Price of the famed Skoda Works stock, however, jumped only from 1,715 to 2,905 crowns.

Even without the new pressure campaigns from Washington and London, neutral nations are likely to cater to Allied wishes during the remainder of the war in Europe.

Swiss firms have suddenly refused to make further sales to Germany on credit.

Swedish interests, as anticipated (BW—Mar. 18'44, p112), are trying to make an over-all deal with this country to fill urgently needed orders for wood-pulp and paper in return for top priority rating on badly needed U. S. machines.

The U. S. may also contract to buy Sweden's entire ball bearing output, beginning immediately, in order to keep it out of the hands of the Germans.

Without revealing either D-Day or H-Hour, Washington has quietly arranged a pep broadcast, timed for the fourth day after the invasion, to be addressed to war workers direct from the assembly line of eight industrial concerns around the country.

Headed for China

Allies will drive for port coast after recapturing the Philippines rather than launch major push through Burma.

Allied strategy in the Far East is undergoing a drastic change which has important implications for business.

The war in the Orient is being shifted up.

Plans of a year ago to move into China through the back door—Burma—being shifted.

Straight Across—Instead, the major thrust—according to today's plans—will be straight across the vast stretches of the Pacific—to the Philippines, and thence to the China coast (map).

The course of the war in Europe will alter this strategy, though a quick European victory would speed up the

operation by freeing ships and planes sooner than cautious leaders are yet counting on them.

• **Reasons for Change**—There are several reasons for this change in plans.

In the first place, the Pacific campaign of the Allies has been successful more quickly than had been anticipated. The Japanese fleet has refused to meet Allied forces. Nipponese planes no longer rise in sufficient numbers to offer serious competition to the swelling droves of heavy bombers and doughty fighters that now threaten even such vaunted Japanese bastions as Truk and Paramushiro.

It is clear that Tokyo is unprepared to defend at least its outer ramparts from the kind of assault that the Allies—30 months after Pearl Harbor—are equipped to make.

• **Disagree on Burma**—But there are other reasons, too, for this important shift in Allied strategy.

Year-old plans for launching a major attack against the Japanese in Burma have failed largely because of the in-

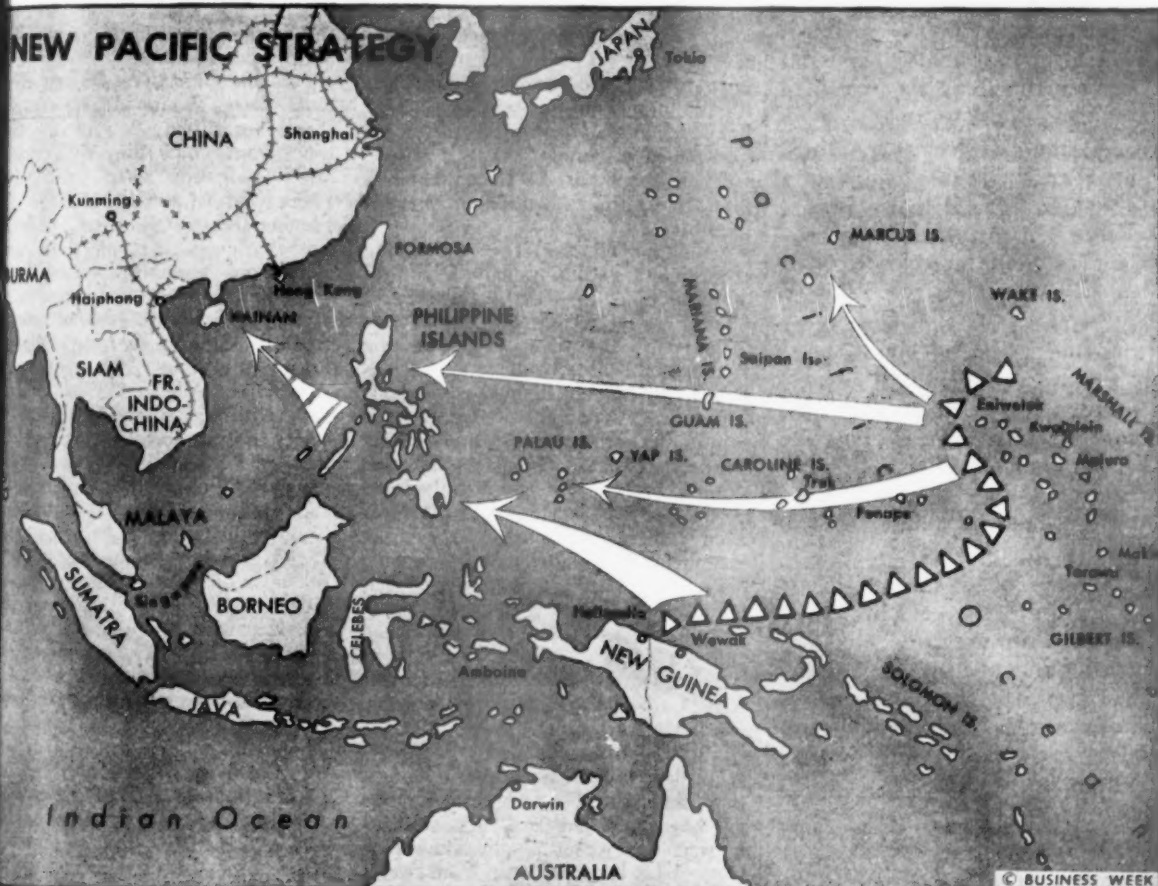
ability of British and American leaders in the area to agree on a plan for action. The conflict is not entirely national in character, for both British and American leaders have failed to agree among themselves.

• **Secondary Drive**—This explains the lack of any major Burma campaign during the past three months.

It also explains why Admiral Lord Mountbatten—Supreme Allied Commander of the area—has moved his base of operations to Ceylon. Here he is at least free from the political control and irritating restrictions of New Delhi, though it is probably too late now to expect more than a secondary drive from this area.

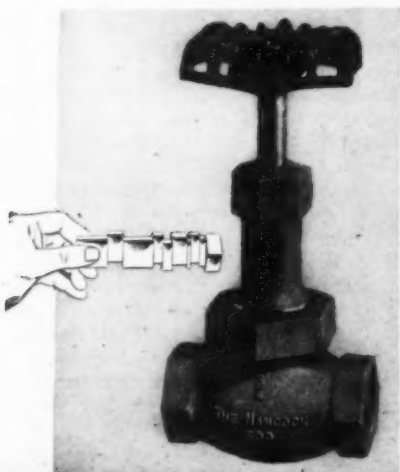
This is likely to come only after the direct Pacific assault of the Allies has cut off the Japanese in Malaya and the Netherland Indies from the main Japanese fleet and from supply bases which are located principally in Japan and Manchukuo.

• **Growing Alarm**—Main cause for the shift, however, is the growing alarm in



committed for a year in efforts to develop from India an offensive which would drive the Japanese out of Burma and reopen a supply road to China, Allied leaders appear now to have a new strategy, from bases in the South

Pacific (behind triangles). Recent air and naval thrusts at Ponape, Truk, and Palau suggest that current plans call for a frontal attack on the Philippines. Next objective: the Asiatic mainland—probably at Haiphong or Hong Kong.



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this country over the situation within China.

Though the world usually dates the Sino-Japanese War from 1937, it really started with the "Mukden Incident" in 1931 when Japanese garrisons were enlarged beyond treaty strength to put down an alleged attack by the Chinese. When none of the powers intervened in China's behalf, the Japanese pushed their advantage, nipped off rich and strategic Manchuria, and then moved south to grab Peking and Tientsin.

• **China's Lost Resources**—Japanese occupation of North China and Manchuria cost the Chiang Kai-shek government nearly a third of its population, an equal amount of its foreign trade, and two of its most important industrial zones: around Mukden, and around Tientsin.

China's position did not become critical, however, until the Japanese blitzed into the Yangtze Valley, captured Nanking and Shanghai, and then systematically occupied every major port and railroad. This cost the Chinese government the bulk of its revenues, closed the main supply lines from abroad, and left the country no more manufacturing capacity than could be carried away over the mountains on muleback or through the treacherous gorges of the Yangtze on man-pulled barges.

These facts must be remembered in interpreting today's developments in the Orient.

• **Runaway Inflation**—The Chungking government is still nominally in control of more than one-half of the area of China, but it has access to not one major port, controls not one of the strategic rail lines, and lacks even a network of modern highways.

One serious result of this lack of communication and local supply is runaway inflation. The Yangtze Valley was supplied with its principal manufactured goods from factories at Hankow or Shanghai, or from imported supplies that came up the valley by boat. Lacking these sources, the demand for goods has so far outstripped puny local supplies that prices have soared several thousand percent. This situation cannot be changed until coastal manufacturing centers are liberated, ports reopened to receive imports from abroad, and communications routes restored.

• **Political Deterioration**—At the same time, the political situation is deteriorating because of the lack of a close tie between the central government in Chungking and territories that stretch for thousands of miles without a railroad, a telegraph line, or even a reasonably good truck road.

The Eighth Route Army (communist) refuses to collaborate fully with Chiang Kai-shek, and the generalissimo

is even accused of maintaining troops a blockade against the communists rather than on the Japanese front. Near army has the guns, ammunition, food, or clothing to fight a major campaign. This explains why the Japanese are able to hold such vast and remote areas with a relatively small number of well equipped troops.

• **Ports Essential**—It has become familiar to American leaders now become familiar with the basic facts about China that they can make only haltingly slow progress against the Japanese if they depend on reinforcements over the "hump," or even over an opened Burma Road. It is also pathetic that American troops do not look pathetically at the inefficiency, the grime and the squalor of the blockaded China through which they must fight if they handle the job through the back door.

This, more than anything else, counts for the gradual shift in strategy over the last six months. The war liberating China can be accomplished speedily only if masses of supplies be landed at some Chinese port on the Pacific, and from there moved to recaptured rail lines.

• **Probable Objectives**—Present naval raids in the Pacific suggest that American forces are driving toward the Philippines from which they will carry the attack—probably early next year. Hong Kong, or possibly to Haiphong, French Indo-China (map, page 11). Both are good ports, and both provide a rail supply line into the interior.

This obvious new strategy helps explain the recent Japanese drive to regain full control of the rail line from Peking to Hankow. Tokyo must prepare to repel the Allies on the China mainland as well as along the island route across the Pacific to Japan itself.

• **Speed Restrictions**—With Allied commanders calling for every possible plane and masses of men for operations in Europe, immediate progress in the Pacific cannot be stepped up again. The invasion is an assured success. Men, supplies, and ships can be diverted to the Pacific.

But, if present timetables can be maintained, it is likely that the Philippines will be reached by the end of this year. When that happens, the whole rich rubber, tin, and oil country of Malaya and the Indies can be expected soon to fall to the Allies, it will be isolated from Japan.

This, then, is the significance of a change in strategy for the futility of fighting a twenty-century war across eighteenth-century China. It is something to be remembered both in reading the war and in planning post-war drives for markets in the Far East.



Take a Lesson from *this fellow!*

With amazing, almost human intelligence, the beaver locates and builds only where he finds an abundance of the things he must have for survival — where conditions are most favorable for construction of his lodge and dam. To this "engineer" of the animal world, careful choice of location is the prime requisite.

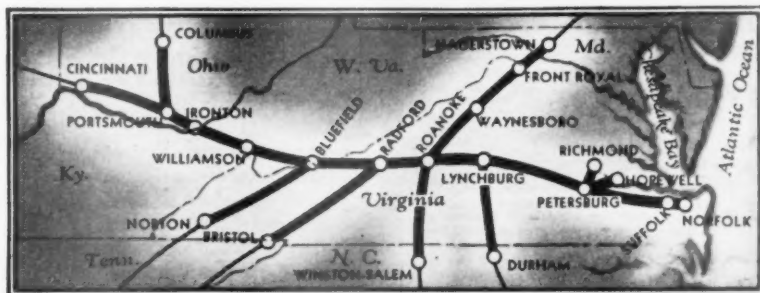
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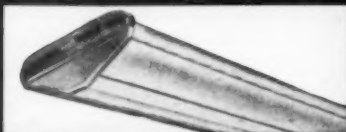
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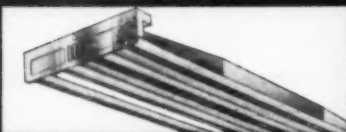
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CANADA

King Steals Show

Canada, its prestige high, plays independent and forceful hand at imperial conference, and likes it that way.

Last week London laid out the mat to welcome four visiting prime ministers and a bevy of lesser Empire officials for the long-heralded imperial conference (BW—Apr. 22'44, p115).

• **Chief Dissenter**—Canada's rotund William Lyon Mackenzie King stole the show from grizzled Jan Christiaan Smuts of the Union of South Africa—elder statesman of the Empire who recently pinch-hit for Churchill as British war cabinet chief—and Peter Frazer and John Curtin of New Zealand and Australia. The delegates from India and other dependencies didn't come.

In the midst of formal unity, Canada stood out as the chief dissenter on proposed Empire policies.

• **Grown Up**—With armistice and postwar policy decisions already under study, Prime Minister Churchill sounded the conference keynote: "It is right that the British Empire in its collective aspect should put itself solidly on the map and make all the watching world realize it stands together."

But Canada has grown up during the war. It ranks fourth among United Nations producers of munitions, and 75% of its output goes to the Allies (BW—Apr. 29'44, p114).

Ottawa no longer talks to Moscow and Chungking—or Washington—through London, but directly and on its own. Canada is an equal partner in two of the Allied economic coordinating combined boards.

• **The Conference**—The imperial conference agenda started with a military preview of the invasion plans. Next came discussion of tough United Nations diplomatic problems on which the United Kingdom sought Empire advice, but mainly agreement.

These included the handling of relations with the French National Committee and other governments-in-exile, border issues in Europe, civil administration in certain liberated countries, and the destiny of enemy nations, particularly Germany, after the armistice.

• **Empire Bloc**—At the bottom of the agenda came Commonwealth relations, including plans for welding the Empire bloc into a single voting voice for future inter-Allied war and postwar dickering.

And it is on this final item that Canada may be expected to show greatest resistance as a result of wartime gain in prestige. In conditions to date, Canada has played a dependent and forceful role, and it that way.

The Canadian postwar world scheme (BW—Mar. 25'44, p116) attempt to bring British and American proposals into common focus.

• **Stumbling Block**—So Prime Minister King is not likely to sign away Canadian bargaining power at the conference, although officially he may in the usual perfunctory postconference communique with complete sincerity.

Biggest stumbling block to Empire unity, however, is the diverse approach of the units of Empire to common trade policy. While Canada is almost more closely attached to the United States tradewise, and is threatening pull out of the Empire trade-preference system established at Ottawa in 1932, Australia and New Zealand, and South Africa in particular, continue to preferential tariffs because the United Kingdom is their chief market.

• **Return Engagement**—Canada is sowing its oats and preparing a barter trade promotion drive, is grooming representatives for worldwide distribution by the Dept. of External Affairs league with the Dept. of Trade and Commerce. Latin America is busy with Canadian legations and is sure to receive special trade promotion emphasis.

One likely upshot of the conference will be the guarantee of a return engagement to approve all major decisions affecting the various parts of the Empire.

Waterway Ag

New pressure behind

St. Lawrence project aimed at postwar make-work campaign. It means a new canal.

MONTREAL—At the drop of a word or at least at the threat of a railroad strike—the promoters of the St. Lawrence River waterway go into action, with a time-worn project for widening, deepening, and straightening the Chazy Canal at the Canadian end (page 113).

• **One Lock Built**—When the project started up in the late twenties, Canadian newspaper interests got behind the project with the result that one lock with 12-ft. (instead of 6-ft.) depth was installed. Donnacona Paper Co. is now putting six 230-ton barges into service, and intermittent dredging of the river channel was undertaken. International Barge

WATERWAY SHORTCUT



C. BUSINESS WEEK

...later added a ship to the service. Since the war began, traffic on the waterway has taxed capacity and thousands of tons of freight have been turned down. Bulk of the southbound traffic is newsprint and lumber. The return cargo consists of coal and nitrates, molding and phosphates, to foodstuffs from Latin America and more distant ports which are loaded in New York.

To Make Jobs—Agitation for improvement of the canal is aimed at taking advantage of full-employment plans being hatched in Ottawa; the Provincial Economic Advisory Board (Quebec) and the Provincial Reconstruction Committee are reported to favor the project if it comes to make-work jobs after the war. It is sure to get the nod over such other talked-of schemes as the 15-mile underwater tunnel from New Brunswick to Prince Edward Island.

To do a real job on the waterway will mean construction of a new canal. The government's survey of the project indicates the need for a 4.2-mi. (instead of the existing 12-mi.) canal around the rapids on the Richelieu River. This would require four instead of nine locks, of 12- or 14-ft. draft to conform with present capacity or possible future improvement of the American sections of the waterway. The cost of rehabilitating the Canadian end is estimated at \$10,000,000 to \$12,000,000.

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THE MARKETS

(FINANCE SECTION—PAGE 69)

The behavior of a number of the whisky shares on the New York Stock Exchange has been giving Wall Street something to talk about. Favorable price action in recent weeks has indicated that the whisky group finally has been able to regain at least a fraction of its former enthusiastic speculative following.

• **Boom Is Recalled**—In fact, some of the whisky group have been putting on performances more than slightly reminiscent of some of the spectacular price moves witnessed when last fall's liquor boom was in full swing.

One prime favorite of the speculative elements has been the common stock of Park & Tilford, Inc. (BW—Apr. 29'44, p84), which is now selling at levels of around \$91 per share.

As a result, the gyrations of these shares over the last two weeks have been quite spectacular since they first staged a rise of \$17, including a \$10 advance in but a relatively few days, and then followed this up early this week, with an abrupt drop of \$7 virtually between sales.

• **Reduces Holdings**—Nevertheless, many former avid participants in the 1943 liquor stock boom still won't become interested as they note that D. A. Schulte, for years the dominant factor in Park & Tilford, remained a seller of the stock last month and had reduced his holdings by Apr. 30 to only 4,752 shares compared to the 54,500 he owned at the end of last November.

Except for this showing of the whisky stocks, trading volume as a whole has continued around the same mediocre levels, which have been present for so

long now, and which were responsible for the Big Board's reporting in April the lowest level of activity experienced in any month since November, 1942.

• **Demand Dwindling**—The slow but insistent demand for stocks in general, which up to last week had produced the unusual spectacle of a rise in the industrial stock price averages for eleven straight days, lately has been dwindling and disclosing signs that it may be about to run out entirely.

Because of the recent creeping advance, some Street quarters are said to believe now that the zig-zag decline that finally ceased a few weeks ago may well prove to have fully discounted the effects on the stock market of the potential opening of a new battle front.

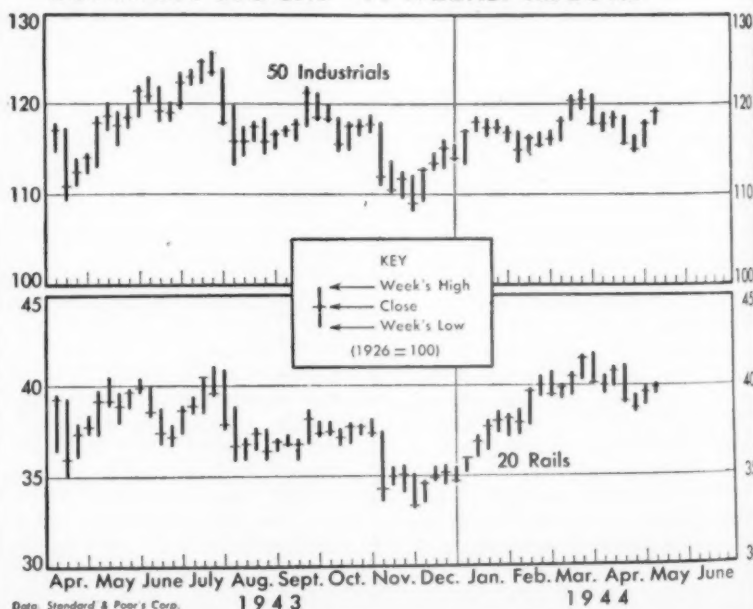
• **Divided Opinion**—This group even claims to see signs lately that investors have been losing much of their "jitters" over the war situation. A majority of observers in the financial district dissent from this opinion, however, and still expect that most investors and traders will continue on the sidelines until they see real clarification of current uncertainties.

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial . . .	119.2	117.8	118.5	118.7
Railroad . . .	39.9	39.6	40.8	39.2
Utility	50.9	50.8	51.6	47.6
Bonds				
Industrial . . .	121.1	121.2	120.9	116.3
Railroad . . .	106.1	105.7	105.9	100.2
Utility	116.3	116.2	116.7	113.4

Data: Standard & Poor's Corp.

COMMON STOCKS—A WEEKLY RECORD



Data: Standard & Poor's Corp.

THE TRADING POST

Air-Minded City

Any one city in these United States has the right to call itself air-minded, but Wichita must be it. You can't find there an hour and not know how universal is the interest in aviation.

Naturally that interest is fanned by war business that has come to Wichita, much of it for aircraft. But there's one town that didn't have to wait for a war to make it air-minded. Back in 1908, before the young pilots were flying Wichita-built ships all over the world had achieved the dignity of newspapers, Roy Knabenshue was flying a 40-hp. dirigible in Wichita. In 1917, we were getting into the other war, and Cessna was building the first plane to be produced there—a six-cylinder, air-cooled job that was to be the start of a long line of ships to take off on their maiden flights. By 1919, Wichita had its first airport and had built its first commercial plane.

In 1919 also a young Army pilot came from Ft. Sill, Okla., and set down in his home town the first U. S. Army plane to land in Wichita. He bobs up again in another role in another war. From that time on, Wichita continued to make aviation history. In 1924, businessmen underwrote a National Congress. Among the earliest manufacturers of airplanes were men whose names still stand high in the industry—Beech, Cessna, Stearman.

It was in 1927 that Stearman returned from California, where he had founded the original Stearman Aircraft Co., to find ample Wichita capital available to build his business there. During 1929, the company made and sold about \$1,000,000 of planes. At one time there were located in Wichita no less than 13 experimental engine factories, 13 mechanical schools, more than 20 aviation accessory businesses, and six service shops. It is quite possible that in 1929 Wichita was the most air-minded and best equipped for servicing aviation in any city in this country—in Wichita they'll tell you in the world. Maybe so!

* * *

All this is despite the fact that Wichita never has been just an air-boom town. As might be expected of a western city now about 75 years old, it has a long and still has many other interests. Before the war it was the second city of its size—now the first. In 1940 its 419 wholesale establishments did a business of \$106,000,000, serving 5,000,000 people in seven states. It is the fourth

milling city of the country, its seven packing plants serve a large livestock industry, and two oil refineries and some 200 manufacturing plants contribute to its industry. Five railroads and 41 truck lines radiate from Wichita.

Altogether it is neither more nor less than a typical western city, which happened to catch on early and effectively to a new technical development that is bound to leave its mark on American life as the railroads, the automobile, and a host of other gadgets have done.

* * *

Then came the war. Like every other American community, Wichita turned its energies to serving the armed forces. Between June, 1940, and September, 1943, we are told, the city had the highest per capita war contract volume of any American city—\$7,800. Its war plants employ some 60,000. In the production of military aircraft alone, four major companies—Beech, Boeing, Cessna, and Culver—and 100 subcontractors are engaged.

I mentioned that Army lieutenant who in 1919 flew into Wichita to land the first Army plane that was to visit his home town. He is J. Earl Schaefer, who left the Army in 1927 to join the staff of Stearman Aircraft Co. Today that company is the Wichita Division of the Boeing Airplane Co. Earl Schaefer is vice-president of Boeing and general manager of its Wichita plants.

In that capacity he and his associates already have taken a notable part in producing the training planes in which many young American pilots have taken their first lessons in the mastery of the air. Now they are building the great Boeing Superfortress, which may well be the weapon by which those youngsters will carry that mastery home to the most remote and secure of our enemies.

* * *

Naturally the thoughtful people of Wichita are wondering what is going to happen to their city after the war. They know that they are going to have a serious problem of readjustment. They are not underestimating it, but they are not letting it get them down. Right now they are getting the facts as to the desires and the plans of the people who work in the war industries. And on the basis of those facts, the business community is figuring how to meet them.

But that is another story. I have no doubt at all that in planning for its future Wichita will continue to look aloft for its opportunity. W.C.

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THE TREND

THE ROAD TO ALL-OUT WAR

America is at the crest of its war effort. Though that effort has not quite hit its potential peak, it nonetheless must now face its stern test. For high policy must be based on intangibles—timing, morale, diplomacy—as well as on the facts of military-economic resources.

Yet we may still have to assess how much further we can go. To do that we must see how far we have come how fast. And that history must be read part by part—for no two parts of our war effort are ever at the same stage at the same time.

• The President has divided the four-year record into four periods—preparedness, from the fall of France to Pearl Harbor; then, defensive war, to permit mobilization; then, from the North African invasion to the end of 1943, “aggressive deployment” and training and equipment of our forces; finally, offensive war, now working up to its culmination.

Actually, all these phases overlapped. We can see the significance of each just as well by looking at the changes from the beginning to the end of each of the years 1941, 1942, 1943—in numbers of workers and fighters, in the annual rate of war expenditures and tax collections, and in the levels of munitions output and living costs.

	End of 1940	(Gain During 1941	1942	1943	End of 1943
Rate of War Spending (Billions of dollars a year)	6	18	49	12	85
Munitions Production (In points of its index) . .	50	100	325	180	655
Armed Forces (Millions of persons)	1.0	1.5	4.5	3.5	10.5
Employment (Millions of persons)	45.6	3.5	2.3	-1.0*	50.4
Cost of Living (In points of its index) . .	100	11	9	4	124
Rate of Tax Receipts (Billions of dollars a year)	8	7	8	22	45

* Decline due to the draft.

• That 1941 marked the period of peacetime-type boom can be seen in its big rise in employment and living costs; but 1942 saw the sharpest mobilization of the war effort—in war output, war expenditures, and armed forces; and in 1943 came the sharpest squeeze on civilians, evidenced indirectly by the acceleration in tax receipts and the decline in employment. The changes thus far this year have been negligible (BW—Jan. 1 '44, p104).

But one figure that can't be shown marks the real flowering of the war effort in 1944: The movement of fighters overseas will reach a peak this year, and the rate at which they go into combat is accelerating even more rapidly.

When the first frantic attempts at national defense began in mid-1940—when volunteers were enlisted, the National Guard mobilized, and selectees drafted; when

“educational” orders were let, a 50,000-plane program mapped, and plant building begun—the nation could call on reserves of unused industrial and agricultural capacity to produce basic materials and on reserves of unemployed and persons not normally seeking work. But, even before Pearl Harbor, the first fumbling controls—OPM priorities, OPACS' price ceilings—had had to be instituted, and, by the outbreak of war, it had already become quite clear that the sharpest mobilization of the war effort was due in 1942 and that butter would have to make way for guns. Pearl Harbor speeded and enlarged the Victory Program; it did not make it.

• Whereas 1941 gave us full employment, and the beginnings of a war effort in the “tooling-up” process, 1942 was the year of conversion of production to war—of clothing factories as well as of auto plants, and of meat output as well as of steel ingots. And basic materials replaced tools as the No. 1 scarcity. Thereupon, the widening gap between demand and supply—in goods, labor, and facilities—demanded firm ceilings on prices and wages and tight restrictions on demand via the Controlled Materials Plan, rationing, and taxes.

Finally, in 1943, the fundamental difficulty of manpower arrived. Along with it dawned a realization of the fundamental unity of the economy in the war effort. Military service drained the pool of workers, and production no longer could be maintained all along the line. While munitions output was pressed forward, it also became clear that shortages in some consumer goods and services impaired manpower morale, mobilization, and efficiency. Hence, the allocation of manpower among the armed forces, war production, and the civilian economy became a single problem. Now each minor corner of the war effort must be closely meshed with the others; otherwise, surpluses appear in some spots while shortages crop up in others.

• Right now, the war effort is short of its potential peak. More servicemen can yet be sent to the fronts. And more men up to physical standards could be inducted than is planned. For there are a few spots in the economy where slack can be taken up—though there are others where pinches must be eased. However, to reap a net gain, great efforts and new controls would be required to smooth out the slacks and pinches. And we're much more apt to find that any new needs that may arise will be sudden, sharp, and spotty—needs, therefore, that can be filled only at the expense of some other essential effort. In any case, the future of the war effort now rests on the test of its past.

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